# CD20 – AC – IndoPak

## Framing (0:45)

#### The standard is utilitarianism. Prefer:

#### [1] Desires are the only basis for ethics since good is only coherent in relation to what we desire—we couldn’t obtain evidence of goodness without desire.

McCord 1 [Geoffrey Sayre-McCord, (Philosophy, University of North Carolina, Chapel Hill) "Mill's “Proof” Of The Principle of Utility: A More Than Half-Hearted Defense" Social Philosophy and Policy, 18(2), 330-360., 2001, https://www.cambridge.org/core/journals/social-philosophy-and-policy/article/mills-proof-of-the-principle-of-utility-a-more-than-halfhearted-defense/FDBE07CBE08D4E17523930BF8C7BBC32, DOA:9-5-2018 // WWBW] SHS ZS

How is the argument supposed to go, if not by way of these multiple fallacies? Let us start with the principle of evidence an d the analo g y Mill draws between visibility and desirability. W hat is the analogy supposed to be if not one that co m mits Mill to interpretin g "desirable" as "capable of bein g desired"? W hen it co mes to visibility, no less than desirability, Mill ex plicitly denies that a "proof" in the "ordinary acceptation of the term" can be offered.25 As he notes, "To be i ncapable of proof by reasoning is com mon to all first pri nciples; to t he first premises of our knowledge, as well as to those of our conduct."26 Nonet heless, support -- t hat is, evi dence, though not proof -- for **the first premises of our knowledge is provided by "our senses**, and our i nternal consciousness." Mill's suggestion is that, when it comes to the first principles of conduct, **desire play the same epistemic role that the senses play**, when it comes to t he first pri nciples of knowledge. To understand this role, it is i mportant to distinguish t he fact t hat someone is sensing something from what is sensed, which is a distinction mirrored i n t he contrast bet ween t he fact t hat someone is desiring something and what is desired. In the case of our senses, **the evidence we have for our judgments** concerning sensible qualities traces back to what **is sensed**, to the content of our sense-experience. Likewise, Mill is suggesting, in the case of value, **the evidence we have for our judgments** concerning value **traces back to what is desired**, to the content of our desires. Ultimately, **the grounds** we have **for holding the principles** we do **must**, he thinks, **be traced back to** our experience, to **our senses** and desires. Yet the evidence we have is not that we are sensing or desiring something but what it is t hat is sensed or desired.27 When we are having sensations of red, when what we are looking at appears red to us, we have evidence (al beit overrideable and defeasi ble evi dence) that the thing is red. Moreover, if things never looked red to us, we could never get evidence that things were red, and would indeed never have developed the concept of redness. Si milarl y, **when we are desiring things**, when what we are consi dering appears good to us, **we have evidence** (al beit overrideable and defeasi ble evi dence) **that the thing is good**. Moreover, if we never desired things, we could never get evidence that things were good, and would indeed never have developed the concept of value. 28 Recall that desire, for Mill, like taste, to uch, sig ht, an d smell, is a "passive sensibility." All of these, he holds, provide us with both the co ntent that makes thought possible and t he evi dence we have for t he concl usions t hat thought leads us to embrace. "**Desiring a thing" and "thinking of it as desirable** (u nless for the sake of its co nseq uences)" **are** treated b y Mill as **o ne an d the same**, just as seeing a thing as red and t hinking of it as red are one and t he same.29 Accordingl y, a person who desires x is a person who ipso facto sees x as desirable.30 Desiring something, for Mill, is a matter of seeing it under the guise of t he good.31 This means that it is important, in the co ntext of Mill's arg u ment, that one not think of desires as mere preferences or as just any sort of motive. They constitute, according to Mill, a distinctive subclass of our motivational states, and are distinguished (at least i n part) by t heir evaluative content.32 Thus, **Mill is neither assuming** nor arguing **that something is good because we desire it; rather, he is depen din g o n o ur desirin g it as establishin g that we see it as good**. Mill's aim is to take what people already, an d he thin ks inevitably, see as desirable and argue t hat those views co m mit them to the value of the general happiness (whet her or not t heir desires follow t he deliverances of t heir reason). Those who, like Mill, desire the general hap piness already hold the view that **the general happiness is desirable**. They accept the claim that Mill is trying to defend. As Mill knows, however, there are many who do not have this desire -- many who desire onl y t heir own happiness, and some who even desire t hat others suffer. These are t he people he sets out to persuade, along with others who are more generous and benevolent, but who nonet heless do not see hap piness as desirable, an d the o nly thin g desirable, as an en d. Mill's arg u ment is directed at convincing t hem all -- whether t heir desires follow or not -- t hat they have grounds for, and are in fact already com mitted to, regarding the happiness of others as val uable as an end. At the same time, while desirin g so methin g is a matter of seein g it as good, one could, on Mill's view, believe that something is good without desiring it, just as one can believe something is red without seeing it as red. W hile desire is supposed to be t he fundamental source of our concept of, and evi dence for, desirability, once the concept is in place there are contexts in which we will have reason to t hink it applies even when t he corresponding sensi ble experience is lackin g. In deed, in Chapter IV, Mill is co ncerned not with generatin g a desire but with justifying t he belief t hat happiness is desirable, and t he onl y thing desirable, as an end, and so concerned with defending t he standard for determining what should be desired.33 Mill recognizes that whatever argument he might hope to offer will need to appeal to evaluative claims people already accept (since he takes to heart Hume's caution concerning i nferring an 'ought' from an 'is').34 The claim Mill thinks he can appeal to -- t hat one's own happiness is a good (i.e. desirable) -- is something licensed as available by people desiring t heir own happiness. Yet he is not supposing here t hat t he fact t hat t hey desire t heir own happiness, or anything else, is proof t hat it is desirable, just as he would not suppose that the fact that so meone sees so methin g as red is proof that it is. Rather, he is supposing t hat if people desire t heir own happiness, or see something as red, one can rel y on t hem having available, as a premise for further argument, the claim that their own happiness is desirable or t hat t he t hing is red (at least absent contrary evidence).35 As he puts it in t he t hird paragraph, "If t he end which t he utilitarian doctrine proposes to itself were not, in theory and in practice, acknowledged to be an end nothing could ever convince any person t hat it was so." Thus, in appealing to t he analogy bet ween judgments of sensi ble qualities and judgments of value, Mill is not trading on an ambiguity, nor does his argument here involve i dentifying being desirable with being desired or assu min g that "desirable" means "desired." He is instead relyin g co nsistently on an empiricist account of concepts and their application -- on a view according to which we have the concepts, evidence, and knowledge we do only thanks to our having experiences of a certain sort. **In the absence of the relevant experiences**, he holds (with other empiricists), **we would** not only **lack the required evidence for our judgments**, we would lack the capacity to make the judgments in the first place. In the presence of the relevant experiences, though, we have both the concepts and the required evidence -- "not onl y all t he proof which the case ad mits of, b ut all which it is possible to req uire."36

#### [2] State obligations – governments can only act on aggregates. Goodin 90.

Robert Goodin 90, [professor of philosophy at the Australian National University college of arts and social sciences], “The Utilitarian Response,” pgs 141-142, SHS ZS

My larger argument turns on the proposition that **there is something special about the situation of public officials that makes utilitarianism more probable** for them than private individuals. Before proceeding with the large argument, I must therefore say what it is that makes it so special about public officials and **their situations** that **make it** both more **necessary** and more desirable **for them to adopt** a more credible form of **utilitarianism**. Consider, first, the argument from necessity. **Public officials are obliged to make their choices under uncertainty**, and uncertainty of a very special sort at that. All choices – public and private alike – are made under some degree of uncertainty, of course. But in the nature of things, private individuals will usually have more complete information on the peculiarities of their own circumstances and on the ramifications that alternative possible choices might have for them. **Public officials**, in contrast, **are relatively** poorly **informed as to the effects** that **their choices will have on individuals**, one by one. What **they typically** do **know** are generalities: **averages and aggregates**. They know what will happen most often to most people as a result of their various possible choices, but that is all. **That is enough to allow** public **policy-makers to use** the **util**itarian calculus – assuming they want to use it at all – to choose general rules or conduct.

#### [3] Reductionism is true – Science proves no personal identity exists. That means there aren’t individual moral agents, so all we can focus on is the state of affairs – maximizing net pleasure. Parfit 84

 [Derek Parfit, cool hair. “Reasons and Persons” 1984.] SHS ZS

Some recent medical cases provide striking evidence in favour of the Reductionist View. **Human beings have a lower brain and two upper hemispheres**, which are **connected by a bundle of fibres**. In treating a few people with severe epilepsy, **surgeons have cut these fibres**. The aim was to reduce the severity of epileptic fits, by confining their causes to a single hemisphere. This aim was achieved. But the operations had another unintended consequence. **The effect**, in the words of one surgeon, **was the creation of ‘two separate** spheres of **consciousness.**’ **This effect was revealed by** various **psychological tests**. These made use of two facts. We control our right arms with our left hemispheres, and vice versa. And what is in the right halves of our visual fields we see with our left hemispheres, and vice versa. When someone’s hemispheres have been disconnected, **psychologists can** thus **present to this person two different written questions** in the two halves of his visual field, **and can receive two different answers** written by this person’s two hands.

#### [4] Moral uncertainty means preventing extinction should be our highest priority. Bostram 12[Nick Bostrom. Faculty of Philosophy & Oxford Martin School University of Oxford. “Existential Risk Prevention as Global Priority.” Global Policy (2012)] SHS ZSThese reflections on moral uncertainty suggest an alternative, complementary way of looking at existential risk; they also suggest a new way of thinking about the ideal of sustainability. Let me elaborate.¶ Our present understanding of axiology might well be confused. We may not now know — at least not in concrete detail — what outcomes would count as a big win for humanity; we might not even yet be able to imagine the best ends of our journey. If we are indeed profoundly uncertain about our ultimate aims, then we should recognize that there is a great option value in preserving — and ideally improving — our ability to recognize value and to steer the future accordingly. Ensuring that there will be a future version of humanity with great powers and a propensity to use them wisely is plausibly the best way available to us to increase the probability that the future will contain a lot of value. To do this, we must prevent any existential catastrophe.

## Offense

### Advantage 1 is War (2:43)

#### First, a historical conflict over Kashmir suggest war goes nuclear – recent events prove. Waqar 19

 [Annie Waqar is a lecturer in the Dept of Politics and IR at the University of Westminister. Extensive research background in Nuclear Security in South Asia and the Middle East, Defense, Arms Control, and IR. Worked for a bunch of think tanks and taught courses for NATO officials.] “Nuclear war between India and Pakistan? An expert assesses the risk.” The Conversation. March 6, 2019. [https://theconversation.com/nuclear-war-between-india-and-pakistan-an-expert-assesses-the-risk-112892 TG //](https://theconversation.com/nuclear-war-between-india-and-pakistan-an-expert-assesses-the-risk-112892%20TG%20//) SHS ZS

* Historical conflict
* Recent terrorist attacks

**Of the** numerous **areas of global tension**, arguably **the most perilous is** that between **India and Pakistan**. And [**recent events** in Kashmir](https://theconversation.com/kashmir-india-and-pakistans-escalating-conflict-will-benefit-narendra-modi-ahead-of-elections-112570) have **made the situation** even **more dangerous**. The reason is straightforward: **India and Pakistan are in a** **long-running** and incendiary **dispute, they are both nuclear powers**, and **crossing a confrontational threshold could ignite** a **nuclear war** between them. Indeed, **arms control investigators** have long **identified the subcontinent as** one of **the world’s likeliest nuclear flashpoints**. India and Pakistan share a long and complicated history, and **they have been in conflict** over the disputed territory of Kashmir **since 1947**. **The** Himalayan **region is one of the most militarised** regions **on Earth** – former US president Bill Clinton has called Kashmir “[**the most dangerous place in the world**](https://www.independent.co.uk/news/world/asia/the-worlds-most-dangerous-place-is-already-at-war-282458.html)”. Under the partition plan provided by the [Indian Independence Act of 1947](http://www.legislation.gov.uk/ukpga/1947/30/pdfs/ukpga_19470030_en.pdf), Kashmir with its Muslim majority was free to accede to either India or Pakistan. But the local ruler, Hari Singh, decided against giving the population a choice, leaving the region in a geopolitical limbo and with a disputed border. A two-year war erupted between India and Pakistan in 1947 and another broke out in 1965. In 1999, [the Kargil crisis](http://news.bbc.co.uk/hi/english/static/in_depth/south_asia/2002/india_pakistan/timeline/1999.stm), **when the two countries** again **came to blows**, **[it] may have been the closest the world has come to nuclear war** since the end of World War II. Diplomatic interventions have previously helped to defuse the military tensions, but an enduring **peace has remained elusive**. Both sides have dug in along the disputed border and [**military skirmishes are commonplace**](https://www.trtworld.com/video/the-newsmakers/why-kashmir-is-a-potential-nuclear-flashpoint-between-india-and-pakistan/5c78e172273f86695b6b13f3). The nuclear question It has long been argued in international security circles that having nuclear weapons deters countries from using them in warfare. Indeed, in the post-World War II era, no state has used them – despite there still being around [15,000 nuclear weapons in the world](https://www.bbc.co.uk/news/world-42873633). But **horizontal nuclear proliferation has made the world** a **dangerous** place; **the more countries** that **have them**, **the more likely** [**they are to be used** at some stage](https://www.mtholyoke.edu/acad/intrel/waltz1.htm). And while the presence of nuclear weapons may forestall a nuclear exchange, **they don’t discourage nuclear states from using conventional military power against one another**. And, as conventional conflicts can quickly escalate, **the possibility of a nuclear exchange remains** a **real**, if remote, possibility. So what are the chances of India and Pakistan ([which both have between 130 and 150 warheads](https://www.sipri.org/publications/2017/sipri-fact-sheets/trends-world-nuclear-forces-2017)) engaging in a nuclear war? **The most** [**recent escalation**](https://www.theguardian.com/world/2019/mar/05/kashmir-fog-of-war-how-conflicting-accounts-benefit-india-pakistan) **is** just **another example of the ongoing tensions between** these **nuclear neighbours**. It was **triggered by a** Kashmiri **militant suicide bombing of an Indian paramilitary convoy** in mid February. In that attack, **more than 40 people were killed, mostly Indian military personnel** – and [Jaish-e-Mohammed](https://www.bbc.co.uk/news/world-asia-47249982), an Islamist terrorist group situated in Pakistan, [claimed responsibility for the attack](https://economictimes.indiatimes.com/news/defence/37-crpf-personnel-killed-in-suicide-attack-in-kashmir-jaish-e-mohammed-claims-responsibility/articleshow/67993130.cms). Indian prime minister Narendra **Modi**, currently caught up in election fever, **warned of a “crushing response**”, **and launched air strikes** on targets in [the Pakistan-controlled Khyber Pakhtunkhwa province](https://www.dailymail.co.uk/news/article-92123/Tension-grows-India-Pakistan.html). It was not long before **both sides were exchanging artillery fire across the line of control and the** [**conflict quickly escalated**](https://www.cnbc.com/2019/03/01/india-pakistan-conflict-timeline.html). Meanwhile, in a [national televised speech](https://www.theguardian.com/world/2019/feb/27/pakistan-pm-imran-khan-appeals-talks-india-war-kashmir), **Pakistan’s prime minister**, Imran Khan, **stated that any further escalation** between the nations **would be beyond the leaders’ control**, warning: With the weapons you have and the weapons we have, can we afford miscalculation? Shouldn’t we think that if this escalates, what will it lead to? The ball is now in India’s court. **Modi has the choice of escalating the conflict** by deploying more jets into Pakistani territory, which could lead to a flurry of “tit-for-tat” retaliations. So what could be next? Since 1974, when India stunned the world with its unexpected atomic trial of the [“Smiling Buddha” weapon](https://www.indiatoday.in/education-today/gk-current-affairs/story/pokharan-i-first-nuclear-atomic-bomb-test-of-india-324141-2016-05-18), **South Asia has been viewed as a global nuclear problem**. Nevertheless, to date, India, like China, has maintained a “No First Use” doctrine. This advocates that India will only use its nuclear weapons in response to a nuclear attack. The policy was proclaimed in 1999, a year after Pakistan effectively exploded five of its own nuclear weapons. **But Pakistan has** so far **refused to issue any** clear **doctrine governing** its own **use of nuclear weapons**. The stakes are high **The combined arsenals** of Pakistan and India are small compared to those of the US, Russia or China. Nevertheless, they are more powerful [than those dropped on Japan in 1945](https://www.history.com/topics/world-war-ii/bombing-of-hiroshima-and-nagasaki) and could **unleash staggering destruction** if deployed on civilian targets. Indeed, even a constrained exchange of warheads between the two nations would, in a split second, be among the most calamitous ever, **notwithstanding the** risk of the **radioactive aftermath** and the long-term impact on the environment. **India’s nuclear-powered ballistic missile** submarine, [INS Arihant](https://economictimes.indiatimes.com/news/defence/ins-arihant-a-warship-which-can-dive-to-300-metres-remain-under-water-for-months/articleshow/66516888.cms), **became operational in 2018**, giving the country a “[nuclear triad](https://www.britannica.com/topic/nuclear-triad)” – the ability to launch nuclear strikes by land, air and sea. Its other ground-based ballistic missile, the [Agni III](https://www.thenewsminute.com/article/india-successfully-test-fires-agni-iii-missile-61091), has a range of approximately 3,000km. While **Pakistan has a slightly larger nuclear arsenal** – [estimated to be 140-150 warheads in 2017](https://www.sipri.org/yearbook/2018/06) – it is less capable of delivering them to targets. Although Pakistan is developing new ballistic missiles, its [current ballistic missile range is 2,000km](https://www.reuters.com/article/us-india-kashmir-pakistan-nuclear-factbo/factbox-india-and-pakistan-nuclear-arsenals-and-strategies-idUSKCN1QI4O5) and the country has no nuclear-armed submarines. Either way, **it** currently **would take less than four minutes for a nuclear missile launched from Pakistan to reach India**, and vice versa. The worst case scenario is that, either through mishap or error, what began with a terrorist attack grows into a nuclear exchange aimed at one another’s civilian populations. **Technological advances** might also **exacerbate the already incendiary situation**. **India’s arsenal** now **includes** [the BrahMos](https://nationalinterest.org/blog/buzz/meet-brahmos-ii-super-hypersonic-missile-russia-and-india-may-never-build-46007), **a cruise missile** developed jointly with Russia, which can be fired from land, sea or air and used as a counterforce weapon. Counterforce doctrine, in nuclear strategy, means the targeting of an opponent’s military infrastructure with a nuclear strike. **Discontent in the Kashmir** valley **could** also **intensify** and lead to further **crises**. **No Indian government has** thus far **shown** the **political will** to solve the Kashmir crisis, **to demilitarise** it, or to apply the diplomatic deftness needed to negotiate a solution with Pakistan. **Nor has Modi been able to control** and prevent hardline Hindus from forming **vigilante squads** in the region and threatening and killing those they think are defiling their religious convictions. And so, on a day-to-day basis, [**ordinary people continue to suffer**](https://www.telegraph.co.uk/news/1399992/A-brief-history-of-the-Kashmir-conflict.html). In the past, during episodes of global tension, the US has taken the lead in crisis management. But it seems unlikely that Islamabad or New Delhi would now turn to the Trump administration for assistance in deescalating the conflict. Indeed, **leaders from both countries must also consider** the reaction of Asia’s third nuclear power, **China**, which has always been the [primary focus of India’s nuclear program](https://www.cfr.org/backgrounder/southern-asias-nuclear-powers). For now, India and Pakistan are showing some vital restraint. But they must also work towards a long-term fix. The last thing either government, or the world, needs is a mushroom cloud.

#### Second, India and Pakistan will launch preemptive strikes to take out each other’s nuclear capacity. Krzyzaniak 19

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Donald Trump isn’t the only one who can change long-standing policy by tweet. On August 16, the Indian defense minister Rajnath Singh took to Twitter during a visit to Pokhran, the site of India’s 1998 nuclear tests. He wrote that, up until now, **India has** strictly **adhered to** the doctrine of **no nuclear first use**, **but** stipulated that “what happens in **the future depends on the circumstances**.” (To be fair, Singh delivered his statement orally before tweeting it.) Singh’s statement caused a stir among South Asia pundits and arms control experts, but to the uninitiated, it might have been difficult to understand what all the hoopla was about. After all, what’s a one-off statement by a defense minister? Isn’t India’s official doctrine still unchanged? And shouldn’t we really concern ourselves with deeds, not just words? [A research paper](https://www.mitpressjournals.org/doi/full/10.1162/isec_a_00340?class=ref+nowrap+full&) by Christopher Clary and Vipin Narang, published earlier this year in the top-ranked academic journal International Security, explains why the Indian defense minister’s recent statement matters so much. As the authors explain, **India has produced only one official nuclear doctrine**, which it [summarized](https://www.mea.gov.in/press-releases.htm?dtl/20131/The+Cabinet+Committee+on+Security+Reviews+perationalization+of+Indias+Nuclear+Doctrine) publicly in 2003. A key pillar of that doctrine is an unequivocal no-first-use policy, meaning that India would only use nuclear weapons in retaliation. The summary also states that a retaliatory strike would be “massive and designed to inflict unacceptable damage,” implying that it would likely be aimed at an adversary’s civilian population centers. **There are** just two **problems for India**. First, **this** so-called “massive retaliation” **policy is not** entirely **credible**. In a hypothetical scenario where an adversary targets, for example, an Indian military base with a single, relatively small nuclear weapon, **it is hard to imagine India responding with** **an attack that annihilates millions** of innocent people. Second, **the massive retaliation policy has been unhelpful in deterring Pakistan** from sponsoring terrorist attacks on Indian soil, such as the 2008 Mumbai attack. India’s default option for responding to such attacks and punishing Pakistan would be a limited conventional strike. However, Pakistan has no reservations about nuclear first use and has indicated that it would use tactical or “battlefield” nuclear weapons on Indian ground forces in certain situations. So **India has no way to respond to terrorist attacks without** running the risk of **escalating to** a **nuclear exchange**. Clary and Narang call this “strategic paralysis.” **India’s solution**, Clary and Narang argue, **has been to develop a “counterforce**” **capability** that would give India the option **to target Pakistan’s nuclear forces** rather than its population centers. Since 2003, **India has been building more precise**, more accurate **missile systems in larger numbers**. It has also been **improving its ability to monitor Pakistan’s nuclear forces**. As the authors write, **few** if any **of these capabilities would be needed for an ordinary** massive retaliation **strategy**. These new capabilities have given way to new temptations. **If we could destroy Pakistan’s entire nuclear arsenal** in one fell swoop, Indian officials might reason, **then why should we** sit with our hands tied **waiting for Pakistan** to strike us with nuclear weapons before we do so? Why rule out **a pre-emptive strike**? This is where India’s no-first-use policy and Defense Minister Singh’s remarks become important. Singh is the highest serving official to suggest changes to India’s no-first-use policy, but he is not the first. “In recent years, serving and retired Indian officials have begun arguing for greater flexibility in India’s existing nuclear doctrine—or asserting that its existing doctrine is already more flexible than commonly assumed,” Clary and Narang write. If Clary and Narang have reasoned correctly and we are witnessing a change in India’s nuclear strategy, what are the risks of that change? First, in a crisis, **both India and Pakistan** would **have** more **incentives to “go first and go massively**,” as the authors say. Pakistan would prefer to use its nuclear weapons rather than lose them, and India would want to try and disarm Pakistan before getting hit. Second, even in peacetime there would be dangerous costs. Pakistan will build more weapons, put them in more places, and take greater measures to hide and protect them; India will look for better ways to find and target those weapons.

#### Third, nuclear submarines increase the chance of miscalculation. Hundley 18.

[Tom Hundley is a senior editor at the Pulitzer Center on Crisis Reporting. He writes for a bunch of news websites.] “India and Pakistan are quietly making nuclear war more likely.” Vox. April 4, 2018. [https://www.vox.com/2018/4/2/17096566/pakistan-india-nuclear-war-submarine-enemies TG //](https://www.vox.com/2018/4/2/17096566/pakistan-india-nuclear-war-submarine-enemies%20TG%20//) SHS ZS

* Subs increase arms race
* Officer accidental launch
* Poor communication to subs
* Nukes are already mated

**Pakistan** says its **decision to add nuclear** **weapons** **to its navy is a direct response to India’s** August 2016 deployment of its first nuclear submarine, the Arihant. A second, even more advanced Indian nuclear submarine, the Arighat, began sea trials last November, and four more boats are scheduled to join the fleet by 2025. That will give **India** a complete “nuclear triad,” which means the country **will have** the **ability to deliver a nuclear strike by land**-based missiles, by war**planes**, **and** by **submarines**. The **submarine** is the key component. It’s **considered the most “survivable” in the event of a devastating first strike** by an enemy, **and** thus **able to deliver** a retaliatory **second strike**. In the theology of nuclear deterrence, the point of this unholy trinity is to make nuclear war unwinnable and, therefore, pointless. When it comes to India and Pakistan, by contrast, **the new generation of nuclear submarines could increase the risk of** a devastating **war** between the two longstanding enemies, not make it less likely. India and Pakistan have gone to war four times since 1947, when Britain partitioned what had been a single colony into Hindu-majority India and Muslim-majority Pakistan. They have been in a state of constant hostility ever since, and for the past two decades, they have been locked in a frightening nuclear arms race on land. Pushing the contest into the Indian Ocean makes the situation even more dangerous by loosening the chain of command and control over the weapons, increasing the number of weapons, and placing them in an environment where things tend to go wrong. “The nuclearization of the Indian Ocean has begun,” Zafar Jaspal, a nuclear security expert at Islamabad’s Quaid-i-Azam University, told me. “Both states have now crossed the threshold.” This should be setting off alarms throughout the international community. **Growing numbers of nuclear weapons will soon be deployed to submarines** patrolling some of the most bitterly contested waters on earth — and **controlled by jittery and** potentially **paranoid officers on perpetual high alert about** a **surprise attack** from the other side. **The result is** a game of **nuclear chicken** every bit as dangerous as the “**my button is bigger than yours”** [competition](https://www.vox.com/2018/1/2/16843480/trump-taunts-kim-jong-un-nuclear-button-tweet) between Donald Trump and Kim Jong Un on the Korean Peninsula. The difference here is that this one is going almost completely unnoticed. Putting **nukes on submarines makes** a **nuclear war much more likely** The modern nuclear-powered, nuclear-armed submarine is arguably the most fearsome weapon ever conceived. The US Navy has 18 Ohio-class boats, four of which can carry 154 cruise missiles apiece. **The submarines can travel beneath the sea for months**, virtually **undetectable**, and their range is limited only by the crew’s endurance and food supply. When we talk about nuclear submarines, we talk about two different, but related, things: what powers the subs, and what kinds of weapons they carry. The US, Russia, the UK, France, and China have nuclear-powered submarines that are also armed with nuclear weapons. Israel is thought to have submarines that are armed with nuclear warheads, but they’re powered by diesel-electric generators. That matters because those types of submarines, unlike the nuclear-powered ones made by America and other major world powers, are noisy — and thus easier to track — and can generally stay underwater for only a week or two at most. India has spent billions of dollars to join that exclusive club — and came close to disaster. The $2.9 billion Arihant nearly sank a few months after its commissioning when a hatch was left open and seawater flooded the propulsion compartment. The embarrassing mishap, blamed on “human error,” was hushed up by the ministry of defense. Even India’s senior political leadership was kept in the dark. The boat has been undergoing extensive repairs since February 2017, according to a January 8 [report in the newspaper the Hindu](http://www.thehindu.com/news/national/ins-arihant-left-crippled-after-accident-10-months-ago/article22392049.ece), which was the first to report the entire saga. Meanwhile, India’s “other” nuclear submarine, the INS Chaka — an Akula-class submarine on loan from Russia primarily for training purposes — is also in dry dock after an unspecified accident damaged its sensitive sonar equipment. In February, Russia sent India a $20 million bill for repairs. **Pakistan**, for its part, **announced** last year that **it had successfully test-fired a submarine-launched cruise missile capable of carrying a nuclear warhead**. That was a clear indication that the country wanted to start arming its submarines with nukes. It had already signaled that it was willing to put nukes on some of its surface ships. The problem is that **putting nukes at sea significantly weakens the chain of command and control over the weapons**, which means **the risk of an accidental exchange** of fire — or full-on nuclear war — between India and Pakistan **will increase exponentially**. Up until now, both Pakistan and India have implemented rigorous checks to keep their weapons safe and eliminate the possibility of inadvertent or rogue launches. In India, ultimate authority in the chain of command and control rests with the country’s civilian political leadership. In theory, Pakistan’s nuclear trigger is also in civilian hands. A body called the National Command Authority, headed by the prime minister, must authorize any decision to use nuclear weapons. But **in reality**, it is **the military**, widely regarded as the most stable and disciplined institution in the country, that **controls all aspects of the country’s nuclear program**. Equally important, both India and Pakistan have kept their warheads and delivery systems “de-mated” — that is, the nuclear warhead is stored far away from the missile that would deliver it. Or in the case of India’s bombs, the trigger or detonator is kept far from the fissile core. But **at sea** — and especially when you go beneath the sea — this is pretty much impossible. The **warheads and missiles have already been assembled** and stored **in the same place**, and individual submarine captains have significant freedom to decide whether to launch their nukes. “The new danger for both countries is that the problem of command and **control over** the **submarines becomes** very **tenuous**,” said Pervez Hoodbhoy, a Pakistani nuclear physicist and frequent visiting scholar at Princeton University, where we spoke last summer. “With land-based weapons, the warhead is separated from the delivery system. You can’t do that with warheads on a submarine. When it leaves the port, **it is already armed**.” Hoodbhoy said that leaves military planners with two options: “Either you do not give the arming code to the captain … or you give it to him before he leaves the port and he can, of his own accord, launch a nuclear missile.” In submarine warfare, **the** glaring **weak link in the chain of command has always been communication** between the sub beneath the sea and the central command. Normal radio waves cannot penetrate the ocean’s depths. To communicate with a submerged submarine, very low frequency (VLF) and extremely low frequency (ELF) radio transmissions are necessary. These frequencies cannot carry voice communications, only coded messages or — at a snail’s pace — text messages. It’s also difficult for the subs to receive communications of any kind if they’re submerged too deeply. These communications are also strictly one-way; subs can hear what ground commanders are telling them but can’t reply or ask questions. “Essentially th**e submarine is on its own,**” said Hoodbhoy, adding that “**it can’t communicate back**” unless it sticks an antenna above the surface and potentially reveals its location. Hiding beneath the ocean, almost impossible to detect, nuclear submarines have the great advantage of being able to survive a nuclear strike by an enemy nation and launch a devastating second-strike response. The same can’t be said for the land-based VLF transmitters that give the subs their orders. These are impossible-to-hide sitting ducks, vulnerable to enemy attack in a first strike. Knock out these installations and the submarines are operating blind. If you watch Denzel Washington and Gene Hackman fight it out in the underwater thriller [Crimson Tide](http://www.imdb.com/title/tt0112740/), you get a pretty accurate picture of how things can go south quickly in the extreme isolation of a nuclear submarine cut off from its centralized command. Pakistan and India went to the nuclear brink during a 1999 war in the disputed territory Kashmir, coming closer to pulling the trigger than even the US and Soviet Union during the 1962 Cuban missile crisis. The Kashmir issue continues to roil both countries, so it’s not hard to imagine a Crimson Tide scenario in which an Indian submarine commander, aware that his country is under attack, receives an incomplete or unclear order to launch. What does he do? Here’s another scenario: India knocks out Pakistan’s only VLF transmitter in Karachi. The beleaguered commander of one of Pakistan’s diesel-electric submarines — lost in the fog of war, unable to communicate with the National Command Authority, and under attack by one of India’s highly capable anti-submarine hunters — launches a cruise missile. Is it armed with a conventional warhead or a nuclear warhead? Do Indian authorities wait until it hits a major population center to find out? Or do they order an immediate retaliatory attack? Experts who have modeled an India-Pakistan nuclear exchange say that **once the first nuke is launched, it would be nearly impossible for either side to deescalate**. That means each side would likely attempt to unleash its entire arsenal of 100 or more nuclear weapons on the other side’s population centers. The ensuing firestorm would release a cloud of radioactive ash that would darken skies, cool temperatures, and disrupt agriculture around the globe for a decade or more. Millions would die, and millions more would be faced with displacement and starvation as we enter what scientists have termed nuclear winter. In many ways, the power to start — or prevent — such devastation rests in the hands of individual submarine commanders. During the Cold War, US submarines had a “two-man rule” that required a commander (Hackman’s character in Crimson Tide) and executive officer (the part played by Washington) to agree that a launch order was valid. As Cold War tensions eased, the two-man rule was replaced by a more rigorous system of checks that require the sub commander to utilize an externally provided code in order to launch. India has not said how it will maintain control of its submarines. “There’s a lot of confusion and not much clarity on this,” said Yogesh Joshi, an analyst at Stanford University who is writing a book on India’s nuclear submarine program. “They are acting as if this is something still in the future, something they can think about later.” The situation will become even more fraught if Pakistan follows through on its threat to arm its surface vessels with nuclear weapons. In that scenario, some ships will carry nuclear weapons and some won’t. This ambiguity creates all kinds of new pathways for mistakes, misunderstandings, miscalculations, and mischief. If a missile is launched from one of these ships, how will India know whether it is a nuke or not? “That will lead us to Armageddon,” warned Abhijit Singh, a former Indian naval officer and current senior fellow at the Observer Research Foundation, a New Delhi think tank.

#### Fourth, Pakistan believes that India will first strike first which triggers escalation – and India is overconfident in their ability to stop a nuclear attack. Claray and Narang 19.

 [Christopher Clary was a Research Fellow at the International Security Project/Project on Managing the Atom. Political Science professor at SUNY Albany. Country director for South Asian affairs in Office of the Secretary of Defense. He focuses on South Asia, International Security and Defense, and Nuclear Issues. PhD in Political Science from MIT. MA in National Security Affairs from Naval Postgraduate School. BA in History and International Studies from Wichita State University. Vipin Narang was a Research Fellow at the International Security Project/Project on Managing the Atom. Professor of Political Science at MIT and part of MITs Security Studies Program. He focuses on South Asia and Nuclear Proliferation. PhD in Government from Harvard. BS in chemical engineering from Stanford. MA in Phil with distinction in IR from Oxford. International Security is America’s leading peer-reviewed journal of security affairs. It provides sophisticated analyses of contemporary, theoretical, and historical security issues. International Security is edited at Harvard Kennedy School’s Belfer Center for Science and International Affairs and is published by The MIT Press.] “India’s New Nuclear Thinking: Counterforce, Crisis, and Consequences.” Harvard’s Kennedy School, Belfer Center. May 24, 2019. [https://www.belfercenter.org/publication/indias-new-nuclear-thinking-counterforce-crises-and-consequences TG //](https://www.belfercenter.org/publication/indias-new-nuclear-thinking-counterforce-crises-and-consequences%20TG%20//) SHS ZS

**The February crisis** represents the first ever use of airpower by a nuclear-armed state against the territory of another nuclear-armed state, and it **showed how vulnerable the India-Pakistan relationship is to rapid escalation**. Had the Indian pilot not been captured alive and expeditiously returned, it is uncertain whether the tit-for-tat escalatory spiral would have ceased after just one round of strikes. Prime Minister Narendra **Modi** himself **declared** that **India was preparing to launch conventional missile strikes** if the pilot remained in Pakistani custody. South Asia was a couple of wrong turns away from serious escalation, with corresponding steps up the nuclear alert ladder. Approximately one month later, Prime Minister **Modi announced** that **India** had **intercepted one of its own satellites with a kinetic kill vehicle**. Modi emphasized, and international attention focused on, **India’s demonstration of** its **anti-satellite capabilities**. **The test,** however, used a modified version of India’s ballistic missile defense interceptor and also **demonstrated the growing capabilities that India has to intercept high-altitude** and high-velocity **targets**, such as those that would be **associated with longer-range Pakistani missiles**. The significance of the test for missile defense was not lost on Pakistan. **The events** of early 2019 **underscore** the intersection of two longer-range trends: (1) **India’s** continued **dissatisfaction with being** **unable to deter** or halt **Pakistani** state sponsorship of anti-India **terrorist groups**; **and** (2) growing **Indian military capabilities to find**, fix, and kill **Pakistani strategic assets**. These trends have generated powerful temptations for Indian leaders to develop options that would permit counterforce targeting of Pakistan’s long-range nuclear systems in the event of a serious conflict. Counterforce Incentives Large states do not like to be deterred by smaller ones, but that is the position in which India has found itself since Pakistan acquired nuclear weapons in the mid-1980s. India alleges that Pakistan continues to support anti-India terrorist and militant groups that have killed tens of thousands of Indian civilians and security personnel over the last three decades. All the while, **Pakistan has threatened to use nuclear** **weapons in the event of a major conventional conflict** with India, **which has constrained India’s ability to retaliate** for fear of tripping Pakistan’s nuclear redlines. As the 2019 Balakot episode underscores, Pakistan’s nuclear weapons and strategy do not prevent any and all Indian retaliation, but it does substantially cap how much—and what type of—force India can employ. **Because** countervalue **Pakistani nuclear use** against Indian cities in retaliation for Indian ground attacks **might be perceived as disproportionate** and incredible, **Pakistan** has **emphasized** since 2011 **its** ability and **willingness** **to use nuclear** **weapons** on the battlefield **in an attempt to** further **restrict India’s space** to conduct punitive military options, especially those that rely on India’s quantitatively superior armor and maneuver warfare forces. **This** strategic **stalemate prompted** a search for **options that would enable India to reestablish deterrence** of Pakistan’s sponsorship of militant and terror groups. The Balakot attacks were one product of that search, with India seeking to use discrete air strikes to limit escalation even as New Delhi signaled resolve. **Pakistan’s counterattacks** also **show**, however, **that even airpower has the potential to result in escalation**. In the event of escalation, **some Indian strategic thinkers** appear to have **concluded** that **India must have a credible ability to disarm Pakistan** of its long-range nuclear systems in order to implement a strategy of escalation dominance, **where India can threaten credibly to** escalate and **defeat Pakistan** at every potential level of violence. **These systems** would also **provide India a last-resort** **option** in the event that Pakistan’s nuclear forces were to fall into the hands of extremists. Expanding Options without Doctrinal Change India issued its official nuclear doctrine in 2003 and has never revised it. The doctrine declares that “nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere.” That has not stopped a growing chorus of serving and retired senior officials in India from questioning the wisdom of an absolute NFU policy. To date, **India’s then-defense minister**, Manohar Parrikar (who served in the Modi government), former National Security Adviser Shivshankar Menon, former Chief of Navy Staff and Chairman of the Chiefs of Staff Committee Adm. Arun Prakash, and former Nuclear Strategic Forces Commander Lt. Gen. Balraj Nagal, among others, have **publicly argued** that **India’s nuclear doctrine** either **currently permits** or ought to permit **nuclear first use,** especially to preempt an imminent Pakistani nuclear strike. Menon, in particular, has suggested that preemption may be consistent with India’s existing doctrine, arguing, “**India’s nuclear doctrine has far greater flexibility than it gets credit for**.” All of these individuals occupied senior positions with responsibility for nuclear planning. **Their statements** of interest **in preemption**, particularly for counterforce options—the targeting option that can achieve serious damage limitation only if used preemptively—**have emerged at the same time as India is increasingly capable** to undertake such an ambitious effort. Growing but Still Insufficient Capabilities When India issued its nuclear doctrine in 2003, it had limited abilities to find Pakistani strategic assets using intelligence, surveillance, and reconnaissance capabilities and virtually no ability to locate those capabilities at night or through cloud cover. Currently, in addition to long-endurance unmanned aerial vehicles, **India has access to an array of visual spectrum** and synthetic aperture **radar imagery** from commercial satellites as well as its own government systems complemented by intelligence from friendly foreign governments. **Even if it could find Pakistani strategic assets**, when India issued its nuclear doctrine in 2003, **it had no** operational ballistic missile systems with ranges greater than 250 kilometers; no **meaningful standoff** conventional **capability** from rockets, glide bombs, or cruise missiles; no ship-based or submarine-based operational cruise or ballistic missiles; and no unmanned aerial vehicles capable of long endurance. **Now it can target much of Pakistan** with a variety of land-based and sea-based ballistic and cruise missiles as well as target growing portions of Pakistan with air-launched weapons and missiles. India has both focused on this suite of capabilities and has benefited from global technological changes that have led some scholars to suggest a new era of counterforce may be emerging. Even if a disarming strike did not entirely succeed, **India has** also **invested in both indigenous ballistic missile defense capabilities and imported systems** such as the Russian S-400. These capabilities would be wholly inadequate to stop a Pakistani first strike, but **they might have** some **ability to intercept residual Pakistani weapons** that remained after an Indian disarming attempt. **Nevertheless, India is unlikely to have the capability to disarm Pakistan** in the near to medium term. Its mere interest in such a capability, however, is likely to stimulate a substantial Pakistani counter-response, accelerating a nascent South Asian arms race. **Awareness of the possibility** of a disarming strike **might** also **engender** greater **Pakistani risk taking**—including early consideration of a first strike by Islamabad—in the event of a serious future Indo-Pakistani conflict. Thus, **New Delhi’s pursuit of counterforce options** designed to help India escape its strategic paralysis **are likely to trigger substantial strategic instability** in South Asia. Indeed, one disturbing lesson from the Balakot retaliation and its aftermath is that **Indian overconfidence in its capabilities** **may lead it to believe it can execute a counterforce** strike in extreme circumstances, **even if it cannot**, which would place New Delhi, and the world, in an incredibly dangerous and destabilizing position.

#### Fifth, cyber warfare and hybrid threats are being developed to undermine the tensions between the two countries. Khalil 4/20.

[Khalil, Basama. “India’s Hybrid / Cyber threats and its regional implications.” Modern Diplomacy. Published 9 Apr 2020] SHS ZS

Hybrid threats are designated as a swing from a traditional force model to an approach which combines kinetic and non-kinetic tools in a deliberate and synchronized campaign to destabilize and gain political leverage over an opponent. However, **Hybrid warfare is** widely **understood as a blend of** regular, irregular, information and **cyber warfare**. After the nuclearization of South Asian region, **there has been a growing realization** within the Indian military **that a conventional war could be** both **untenable** and cost prohibitive. Such **conception gave rise to hybrid war under the rubric of nuclear weapons** as the preferred strategy by India. **One can observe** the evident **growth of hybrid warfare** in the Indian strategy **of pressuring Pakistan through** media, subversion, **cyber warfare** and diplomatic maneuvers aimed at its isolation. Doval doctrine is the clear evidence that India has already strategize against Pakistan. **India’s hybrid warfare strategy** against Pakistan **is built on five major fronts** around Pakistan’s perceived weaknesses **to achieve** the “3D Objectives”. 3D indicates the **Destabilization, Demoralization and Disintegration** of Pakistan. This doctrine furthermore includes five more fronts under the regime of hybrid threats which are **proxies, information war, cyber warfare, economic war and political war**. **The** stipulated **objective is weakening** of **Pakistan** to the extent that it accepts Indian hegemony in the region. India is proficiently using hybrid-warfare capabilities to pursue its objectives in South Asian region since the end of Cold War. Nevertheless, Islamabad has been resisting New Delhi’s endeavors to establish its hegemony in the region. **India has been frequently violating the Line of Control**. Within the military domain it is against the law and not allowed to launch fire on the civilians’ working or moving near the border during the peacetime. India always tries to defame and malign the image of Pakistan by manipulating and misguiding international media. By the end of March 2020, a RAW funded group caught in Karachi University fueling anti-state activities including terrorism and anti-state narrative propagation against Pakistan. Although Pakistan very efficiently embarks upon curbing India generated conspiracies, such type of activities being carried out, **increasing hybrid threats pose serious security concerns for Pakistan**. As stated above, hybrid threat involves cyber warfare techniques as assisting tools of hybrid techniques. **Cyber threat is another hazard in South Asian region** to be handled and manipulated to win advantages over enemy. **New technologies are quickly integrated** into both nations’ strategies; utilizing cyberspace has become a useful tool for both India and Pakistan. **Cyberspace has become a space where hacktivists and patriotic hackers** from both sides **can** **express their patriotic feelings** and denigrate the adversary. Cyberspace also acts as a means for Advanced Persistent Threats (APTs), which are groups that hold highly probable links to state institutions, **to spy and gain information on their opponent**. Technologically number of the cyber-activities observed in the India-Pakistan rivalry showed that even with relatively unsophisticated cyber-tools, APTs managed to steal information and achieve their strategic goals. **Actors involved in the cyber activities** and operations **carried out** **between India and Pakistan in cyberspace** used a variety of cyber tools and techniques to achieve their aims. Hacktivists and patriotic **hackers used specific tools to find vulnerabilities** in websites, and then exploited them to deface the site. APTs tended to use spear phishing to get access to their victim’s network and then infect them with spying malware. **Rising Security Research Institute** in 2019 has **captured the attack** launched by the internationally renowned Advanced Persistent Threat (APT) organization “Rattlesnake” through the Rising Threat Intelligence System. This time, **the organization had targeted the Pakistani Navy via Target collision hijacking method**. Specifically targeting the Pakistan Naval Public Relations Bureau, **the attempt was** aimed at **stealing vital information from secure military networks** while planting misleading documents masquerading as official statements from the Pakistan Navy regarding its regional neighbors such as China and India. Based on such threats, **Pakistan must be readily prepared for any kind of cyber espionage** and take steps towards establishing a strong national cyber policy to protect its civilian and military infrastructure. Hybrid/cyber threats operates below the threshold and it has deepen it’s in roots in South Asian region especially in Pakistan. War had never been smooth since its early times but **hybrid war threats** employ different tools in **engaging low intensity conflicts** which mainly **include cyber threats** along social disintegration, political and economic subversion. Senator Mian Raza Rabbani stated in 2019, that ‘this is a hybrid war. We need to understand it correctly.’ In hybrid warfare, the purpose is not to always achieve an immediate victory; sometimes the purpose is to demoralize it over time. **Pakistan is already having a deteriorating economy and it needs to steadily address the causes** that are providing leverages to conduct hybrid operations in Pakistan and leaving long term hazardous effects in form of weak economic conditions, political and social instability. **Pakistan must formulate a national hybrid threats** response policy to tackle and dissolve the hybrid threats posed by India. Whereas in the cyber domain Pakistan should emphasize more on indigenously developing its own cyber security industry so that in the near future it could benefit both its civilian and military infrastructure in the long run. Hence, while Pakistan may be limited in its ability to wage a strong offensive campaign within the realm of cyber warfare at the moment, such steps would go a long way in helping lay the foundations to build something greater on.

#### Meta-analyses from military and policy experts prove—escalation goes nuclear—three scenarios. Toon et. Al 19

 [October 2, 2019, Owen B. Toon, Charles G. Bardeen, Alan Robock, Lili Xia, Hans Kristensen, Matthew McKinzie, R. J. Peterson, Cheryl S. Harrison, Nicole S. Lovenduski and Richard P. Turco Rapidly expanding nuclear arsenals in Pakistan and India portend regional and global catastrophe, <https://advances.sciencemag.org/content/5/10/eaay5478/tab-article-info>] CL // SHS ZS

* Pakistan launches nukes to not get overrun
* India/Pakistan lose control of command
* Mistake attack thinking nuclear

Neither Pakistan nor India is likely to initiate a nuclear conflict without substantial provocation. India has declared a policy of no first use of nuclear weapons, except in response to an attack with biological or chemical weapons ([5](https://advances.sciencemag.org/content/5/10/eaay5478#ref-5)). Pakistan has declared that it would only use nuclear weapons if it could not stop an invasion by conventional means or if it were attacked by nuclear weapons. Unfortunately, **the two countries have had four conventional wars** (1947, 1965, 1971, and 1999) **and many skirmishes with substantial loss of life** since the partition of British India in 1947. Therefore, **the possibility of conventional war becoming nuclear is of concern**. Lavoy and Smith ([11](https://advances.sciencemag.org/content/5/10/eaay5478#ref-11)) discuss **three plausible scenarios for a nuclear war** between India and Pakistan. India has conventional military superiority. India is also geographically much larger than Pakistan. **One possible route** to nuclear war **involves a conventional conflict between India and Pakistan**. **If Pakistan perceived** that **India were about to successfully invade them,** **that would put pressure on Pakistan to launch its nuclear weapons before they were overrun by the superior conventional** Indian **forces**. **Another possibility** for starting a nuclear conflict **is that India or Pakistan could lose control of its command** and control structures due to an attack on them by the other side or possibly an attack by terrorists from within India or Pakistan or from another country. **In such a scenario, it is not clear who might be in control of the nuclear forces** and what steps they might take. **A third possibility** for starting a nuclear conflict **is that India or Pakistan might mistake an attack by conventional forces**, or even military exercises, **for an attack by nuclear forces**. To help evaluate the consequences of a nuclear conflict between India and Pakistan, table S1 provides a specific scenario for a war assumed to take place in 2025. Although this scenario has Pakistan first launching nuclear weapons, we do not mean to imply that they are more likely to do this than India. Because large numbers of weapons are assumed to be used by both sides, we would expect our results to be similar no matter how the war started. Moreover, we would expect the global outcomes projected here to apply equally well—with relevant recalibration for weapon sizes and targets and related smoke emissions—to any nuclear conflict between nuclear-armed states that involves a corresponding total yield detonated essentially in urban areas. **Many scenarios of an India-Pakistan conflict in 2025 are possible**, ranging from no nuclear weapons deployed to as many as 500 nuclear weapons—many with yields above 100 kt—detonated. We chose the scenario outlined in table S1 as plausible following advice from a number of military and policy experts. In addition, the information presented in this paper and the Supplementary Materials can be used as a basis to compute the results for other scenarios. The main determinants of casualties and climate effects are the number of weapons used, the yield of the weapons, and the targets for the weapons, each of which is unknown in advance. The discussion in the following paragraphs exemplifies scenario factors that have been widely considered in the literature concerning conflicts between India and Pakistan, which might be varied in alternative scenarios including the role of the number of potential targets in choosing the sizes of arsenals; the characteristics, such as failure rates, of available weapons and delivery systems; the events that might lead to an escalating nuclear conflict; resolution of the Kashmir problem that might lessen the likelihood of a dangerous confrontation; the importance of urban targets in contributing to fatalities and climate effects owing to high population densities and fuel loadings; the difficulty of preventing a conflict from going nuclear because of the destabilizing effects of tactical nuclear weapons on both sides; the importance of Indian concerns about China in making it difficult for Pakistan and India to reduce their nuclear stockpiles; and the possible role of the disproportionate sizes of the countries, militaries, and populations of India and Pakistan in motivating the initial use of nuclear weapons.

#### Nuclear war between India and Pakistan destroys the world. Johnson 19

 [Scott K Johnson is an educator and recovering hydrogeologist who has been covering the geosciences for Ars since 2011.] “Misery of a nuclear war between India and Pakistan would be global.” Ars Technica. October 4, 2019. <https://arstechnica.com/science/2019/10/misery-of-a-nuclear-war-between-india-and-pakistan-would-be-global/> TG // SHS ZS

* Cites Toon

The catastrophe would not be restricted by national borders. **Nuclear explosions burn** sizable **areas around the target**, with heat so intense that near-complete incineration is possible. **The soot particles generated** by these fires **would be** **lifted into the upper troposphere**. **Some** of that **would fall** to the ground **with rain, but much** of it **would absorb sunlight**, **heating the surround air and riding the resultant rising motion** into the stratosphere. **Once in the stratosphere, it can stay suspended** much longer **and encircle the planet**. (This is also how some volcanic eruptions produce a global climate impact.) With estimates of fire extent and the amount of combustible material in those areas, the **researchers ran climate-model simulations of what the soot**—16 to 36 million metric tons of it—**would do** in the atmosphere. They actually used the same model that recently [produced a simulation](https://arstechnica.com/science/2017/08/the-end-cretaceous-mass-extinction-was-rather-unpleasant/) of the Chicxulub impact at the end-Cretaceous mass extinction. Simply put, **soot would block about 20% to 30% of the Sun’s light**, globally. That’s a decrease of about 30W to 60W per square meter of the Earth’s surface. For comparison, the 1991 eruption of Mount Pinatubo caused a decrease of 4W per square meter. **The result would be a 2°C to 5°C** (about 4°F to 9°F) **global cooling**. Temperatures would reach their lowest after about three years and maintain that level for another four years. Getting back to previous temperatures would take over a decade. **The cooling would** slow the hydrologic cycle and **decrease rainfall by 15% to 30% percent globally**, with impacts varying in different regions. In India and Central China, for example, precipitation would drop to nearly zero. The Northeastern and Midwestern United States would see a decline of 50%. “Should a war between India and Pakistan ever occur, as assumed here,” the researchers write, “**these countries alone could suffer 50 to 125 million fatalities**, a regional catastrophe. In addition, severe short-term climate perturbations, with temperatures declining to values not seen on Earth since the middle of the last Ice Age, would be triggered by smoke from burning cities, **a global disaster threatening food production worldwide and mass starvation**, as well as severe disruption to natural ecosystems.”

#### Extinction – nuke war fallout creates Ice Age and mass starvation. Starr 15

Steven Starr 15. “Nuclear War: An Unrecognized Mass Extinction Event Waiting To Happen.” Ratical. March 2015. [https://ratical.org/radiation/NuclearExtinction/StevenStarr022815.html TG //](https://ratical.org/radiation/NuclearExtinction/StevenStarr022815.html%20TG%20//) SHS ZS

**A war fought with 21st century** strategic **nuclear weapons** would be more than just a great catastrophe in human history. If we allow it to happen, such a war **would be a mass extinction** **event** that [ends human history](https://ratical.org/radiation/NuclearExtinction/StarrNuclearWinterOct09.pdf). There is a profound difference between extinction and “an unprecedented disaster,” or even “the end of civilization,” because even after such an immense catastrophe, human life would go on. But extinction, by definition, is an event of utter finality, and a nuclear war that could cause human extinction should really be considered as the ultimate criminal act. It certainly would be the crime to end all crimes. The world’s leading climatologists now tell us that **nuclear war threatens our continued existence** as a species. Their studies predict that **a large nuclear war,** especially one foug**ht with strategic nuclear weapons,** **would create a post-war environment** in which for many years it would be **too cold and dark to** even **grow food**. Their findings make it clear that not only humans, but most large animals and many other forms of complex life would likely vanish forever in a nuclear darkness of our own making. **The environmental consequences** of nuclear war **would attack the ecological support systems** of life at every level. **Radioactive fallout** produced not only by nuclear bombs, but also by the destruction of nuclear power plants and their spent fuel pools, **would poison the biosphere**. **Millions of tons of smoke would** act **to** [**destroy Earth’s protective ozone layer**](https://www2.ucar.edu/atmosnews/just-published/3995/nuclear-war-and-ultraviolet-radiation) and block most sunlight from reaching Earth’s surface, creating Ice Age weather conditions that would last **for decades**. Yet the political and military leaders who control nuclear weapons strictly avoid any direct public discussion of the consequences of nuclear war. They do so by arguing that nuclear weapons are not intended to be used, but only to deter. Remarkably, the leaders of the Nuclear Weapon States have chosen to ignore the authoritative, long-standing scientific research done by the climatologists, research that predicts vir**tually any nuclear war, fought with even a fraction of the operational** and deployed **nuclear arsenals, will leave the Earth** essentially **uninhabitable**.

#### Even if they win instant nuclear war isn’t likely, arsenals maintain low-level provocations that will escalate—stability paradox proves. Talmadge 19

[Caitlin Talmadge, March 5 2019, Are nuclear weapons keeping the India-Pakistan crisis from escalating — or making it more dangerous?, Washington Post, <https://www.washingtonpost.com/politics/2019/03/05/are-nuclear-weapons-keeping-india-pakistan-crisis-escalating-or-making-it-more-dangerous/>, [Caitlin Talmadge](http://www.caitlintalmadge.com/) is an associate professor of security studies in the Walsh School of Foreign Service at Georgetown University, non-resident senior fellow in foreign policy at the Brookings Institution] CL // SHS ZS

The world has been on edge watching India and Pakistan’s [latest crisis](https://www.nytimes.com/2019/03/02/world/asia/kashmir-shelling-india-pakistan.html). For the first time since 1971, India [bombed](https://www.washingtonpost.com/world/pakistan-says-indian-fighter-jets-crossed-into-its-territory-and-carried-out-limited-airstrike/2019/02/25/901f3000-3979-11e9-a06c-3ec8ed509d15_story.html?utm_term=.75331812d112&tid=lk_inline_manual_2) mainland Pakistan. The strike was [retaliation](https://www.washingtonpost.com/politics/2019/02/25/after-terrorists-attacked-kashmir-will-india-seek-vengeance-or-de-escalation/?utm_term=.db0297e9c280&tid=lk_inline_manual_2) after a Pakistan-based terrorist group supported a [suicide bombing](https://www.washingtonpost.com/news/monkey-cage/wp/2019/02/15/the-kashmir-attack-could-prompt-a-crisis-in-south-asia-heres-why/?utm_term=.b6e45ed1291c&tid=lk_inline_manual_2) in the disputed territory of Kashmir that killed at least 40 Indian paramilitary soldiers. Unlike in 1971, however, **India and Pakistan now have sizable** [**nuclear arsenals**](https://www.amazon.com/Nuclear-Strategy-Modern-Era-International/dp/0691159831). Before Pakistan [released](https://www.nytimes.com/2019/03/01/world/asia/india-pakistan-plane-abhinandan-varthaman-india.html) a captured Indian pilot who had ejected over its territory, some [observers](https://www.cnn.com/2019/03/01/asia/india-pakistan-military-balance-intl/index.html) worried that the crisis could have [escalated](https://www.economist.com/briefing/2019/02/28/skirmishing-between-india-and-pakistan-could-escalate) into a nuclear conflict. [Others](https://www.amazon.com/Fearful-Symmetry-India-Pakistan-Nuclear-Weapons/dp/0295986352), however, would likely credit [nuclear weapons](https://www.amazon.com/Meaning-Nuclear-Revolution-Statecraft-Armageddon/dp/0801495652/ref%3Dsr_1_1?keywords=nuclear+revolution&qid=1551715235&s=books&sr=1-1) with getting both countries to step back from the brink. Which is it? The crisis is just the latest chapter in a long-running [debate](https://www.amazon.com/India-Pakistan-Bomb-Stability-University/dp/B00MCA6AQ4/ref%3Dsr_1_fkmrnull_4?keywords=kapur+ganguly&qid=1551484169&s=gateway&sr=8-4-fkmrnull) about the [consequences of nuclear weapons](https://www.amazon.com/Spread-Nuclear-Weapons-Enduring-Debate/dp/0393920100). After terrorist attack in Kashmir, will India seek vengeance or de-escalation? Scholars disagree about whether nuclear weapons stabilize or destabilize relations between adversaries. **The traditional school of thought is that once two countries establish secure nuclear arsenals** that can withstand attack and still hit back, **they enter a state of** [**mutually assured destruction**](https://www.amazon.com/Analyzing-Strategic-Nuclear-Policy-Charles/dp/0691023123/ref%3Dpd_lpo_sbs_14_img_0?_encoding=UTF8&psc=1&refRID=JQ5E5VABRBJB84FQK8YP), or MAD. Even the loser in a war can devastate the other’s civilians, making military victory and [relative military power](https://www.jstor.org/stable/2149629?seq=1#metadata_info_tab_contents) all but meaningless. **The result**, [according to this logic](https://www.amazon.com/Meaning-Nuclear-Revolution-Statecraft-Armageddon/dp/0801495652/ref%3Dsr_1_fkmrnull_1?keywords=jervis+nuclear+revolution&qid=1551468034&s=books&sr=1-1-fkmrnull), **is that nuclear-armed adversaries will behave quite differently from countries without nuclear weapons**. **Afraid of nuclear escalation**, such **rivals will** avoid arms races, **stay out of wars**, deescalate crises, refrain from threatening one another’s core interests, and generally maintain the status quo. **Not all scholars agree** with this analysis. Precisely **because countries with robust nuclear arsenals can threaten one another with such devastation**, th**ey may believe they can safely skirmish at a lower level without fearing all-out war**. [Glenn Snyder](https://books.google.com/books?id=erGOAAAAMAAJ) called this **the** [**Stability-Instability Paradox**](https://www.armscontrolwonk.com/archive/402911/the-stability-instability-paradox/). AD **A country with a secure nuclear arsenal might** even **increase its low-level military provocations** of a nuclear-armed opponent, **betting that the opponent’s fear of escalation will constrain the response**. From this perspective, **nuclear weapons can make conflict more likely and** — if countries miscalculate escalation risks — **more dangerous**. [The Kashmir attack could prompt a crisis in South Asia. Here’s why.](https://www.washingtonpost.com/news/monkey-cage/wp/2019/02/15/the-kashmir-attack-could-prompt-a-crisis-in-south-asia-heres-why?tid=lk_interstitial_manual_15) The historical record from the Cold War is mixed. Many credit nuclear weapons with keeping the [Cold War](https://www.amazon.com/Long-Peace-Inquiries-Into-History/dp/0195043359/ref%3Dsr_1_fkmrnull_1?keywords=gaddis+long+peace&qid=1551578427&s=books&sr=1-1-fkmrnull) cold. But the United States and the Soviet Union did have several [near-misses](https://www.amazon.com/Command-Crisis-Four-Case-Studies/dp/0231074484) — most notably the [crises](https://www.amazon.com/History-Strategy-Marc-Trachtenberg/dp/0691023433) over [Berlin](https://history.state.gov/milestones/1953-1960/berlin-crises) from 1958-1961, and [Cuba](https://history.state.gov/milestones/1961-1968/cuban-missile-crisis) in 1962. The two superpowers also fought [bloody](https://www.amazon.com/Cold-Wars-Killing-Fields-Rethinking/dp/006236720X) proxy wars in places as varied as Korea, Vietnam, Afghanistan and the Middle East. [**U.S.**](https://warontherocks.com/2018/03/was-there-a-nuclear-revolution-strategy-grand-strategy-and-the-ultimate-weapon/) **and** [**Soviet policymakers**](https://www.tandfonline.com/doi/abs/10.1080/01402390.2017.1330683) **profoundly feared nuclear escalation**, worried that any conflict could get out of control and devastate both nations. **But both sides also tried**, at times, **to exploit these fears to gain** [**bargaining advantages**](https://www.amazon.com/Arms-Influence-Preface-Afterword-Lectures/dp/0300143370/ref%3Dpd_lpo_sbs_14_t_0?_encoding=UTF8&psc=1&refRID=TEAY9CYGZB4Y3532SAJ5) **on issues** they really cared about, hoping that the other side might back down. AD At other times, **the U.S. and U.S.S.R. believed that they could safely skirmish through proxies without risking nuclear catastrophe**. Usually [they were right](https://www.frstrategie.org/web/documents/publications/autres/2017/2017-tertrais-twq-on-the-brink.pdf), although sometimes, such as in the [1973 Arab-Israeli war](https://www.pri.org/stories/2012-10-26/little-known-us-soviet-confrontation-during-yom-kippur-war), conventional conflict came [closer](https://muse.jhu.edu/article/446111/summary) to the [nuclear threshold](https://www.cna.org/CNA_files/PDF/DRM-2013-U-004480-Final.pdf) than expected. Further, **both the** [**U.S.**](https://www.amazon.com/Logic-American-Nuclear-Strategy-Superiority/dp/0190849185/ref%3Dpd_lpo_sbs_14_t_0?_encoding=UTF8&psc=1&refRID=QCS4ZWANZ5YPMHN9E9Z8) **and U.S.S.R. sought various ways to** [**escape**](https://www.amazon.com/Illogic-American-Nuclear-Strategy/dp/B009PACR9S) from **MAD’s** limitations. **Both pursued military capabilities that could threaten the other’s nuclear forces** (not just its cities) and could shield their homelands. As political scientists [Austin Long and Brendan Green](https://www.tandfonline.com/doi/pdf/10.1080/01402390.2014.958150) have shown, the U.S. did this more successfully. But it still [never felt confident](https://www.amazon.com/Nuclear-Blackmail-Balance-Richard-Betts/dp/0815709358) that it could [strike the Soviets](https://www.theatlantic.com/magazine/archive/2001/10/jfks-first-strike-plan/376432/) without risking devastating retaliation. The U.S. capabilities [alarmed the Soviets](https://www.tandfonline.com/doi/abs/10.1080/09636412.2017.1331639), however, who believed the U.S. was [preparing for attack](https://www.tandfonline.com/doi/abs/10.1080/08850600600656400). This fear could have made crises or wars much [more dangerous](https://www.amazon.com/Inadvertent-Escalation-Conventional-Nuclear-Security/dp/0801478855). AD **Nuclear weapons have a similarly double-edged effect** in the India-Pakistan relationship today. India and Pakistan fought three conventional wars – in 1947, 1965, and 1971 – before acquiring nuclear weapons. Though they’ve fought [one war](https://www.amazon.com/Asymmetric-Warfare-South-Asia-Consequences/dp/0521767210) and had several crises since 1998, all have been smaller in scale. This is probably not a coincidence, as political scientists [Devin Hagerty](https://www.amazon.com/Consequences-Nuclear-Proliferation-International-Security/dp/0262581612) and [Sumit Ganguly](https://www.amazon.com/Fearful-Symmetry-India-Pakistan-Nuclear-Weapons/dp/0295986352) have argued. [Why North Korea succeeded at getting nuclear weapons – when Libya and Iran failed.](https://www.washingtonpost.com/news/monkey-cage/wp/2018/01/02/why-north-korea-succeeded-at-getting-nuclear-weapons-when-iraq-and-libya-failed/?tid=lk_interstitial_manual_30) Nevertheless, the recent crisis shows that **even if both sides have robust nuclear arsenals, governments don’t** necessarily **maintain the status quo** — especially when there are poorly controlled militants operating in a border area that both sides consider vital. Just as in the Cold War, **India and Pakistan may try to use the risk of escalation to get the upper hand**, hoping the other side will back down. So while it’s true that the fear of nuclear escalation may reduce wars and crises, **nuclear weapons also could make such events more dangerous if they happen**. AD Like the superpowers, **India and Pakistan may** also **believe that they can** sometimes **operate** safely **below a conventional-nuclear firebreak**. **But if they disagree** on where that threshold lies, **all bets are off**, as [Paul Kapur](https://www.sup.org/books/title/?id=10541) has emphasized. This sort of thinking is especially worrisome given that India, like the Cold War U.S., may be trying to escape MAD. According to political scientists [Christopher Clary and Vipin Narang](https://www.mitpressjournals.org/doi/full/10.1162/isec_a_00340), India is considering developing forces that could attack Pakistan’s nuclear weapons preemptively. If India believes it has this capability, it might try to strike first if it believed Pakistan were poised to use nuclear weapons. But if Pakistan believed India believed that, then of course Pakistan really would have incentives to go first. This is the stuff of nuclear nightmares, especially with the U.S. government [sitting on the sidelines](https://www.cnn.com/2019/02/27/opinions/india-pakistan-precipice-of-war-rafia-zakaria/index.html). Worse, unlike the U.S. and U.S.S.R., India and Pakistan share a border – and their citizens may be [pushing harder](https://www.washingtonpost.com/politics/2019/02/25/after-terrorists-attacked-kashmir-will-india-seek-vengeance-or-de-escalation/?utm_term=.c2dee4b14007&tid=lk_inline_manual_39) for escalation.

### Advantage 2 is Terrorism (1:00)

#### High probability of nuclear terrorism in Pakistan – past attacks and insider help prove. Shapoo 17.

 [Sajid Farid Shapoo has MA in International Affairs from Columbia with specialization in International Security Policy and the ME. PhD candidate in Security Studies at Princeton’s Woodrow Wilson School. Taught some classes on terrorism at Columbia and City University of New York. Highly decorated Indian Police Service officer, two-star general with 20 years of senior experience in counterterrorism. Supervised investigations related to Mumbai Terror Attacks, Patna serial blasts, Bodh Gaya blasts, and more.] “Terrorist Threats to Pakistan’s Tactical Nuclear Weapons: A Clear and Present Danger.” Small Wars Journal. Early 2017. <https://smallwarsjournal.com/jrnl/art/terrorist-threats-to-pakistan%E2%80%99s-tactical-nuclear-weapons-a-clear-and-present-danger> TG // SHS ZS

**The** possible catastrophic scenario of the **acquisition of a** **nuclear weapon by a terrorist organization** with the active help of rogue insiders **nearly played out when** a group of **navy officers attempted to hijack** **a sophisticated Pakistan** navy **frigate**. In Sept 2014, an audacious attack was led by serving and former Pakistani navy officers to take over the Pakistani Navy frigate PNS Zulfiqar. **The alleged plan was** **to gain control** of the vessel, **steer it to open sea** **and then turn its guns on a U.S. naval vessel**.[[viii]](https://smallwarsjournal.com/jrnl/art/terrorist-threats-to-pakistan%E2%80%99s-tactical-nuclear-weapons-a-clear-and-present-danger%22%20%5Cl%20%22_edn8%22%20%5Co%20%22) The attack was thwarted by Pakistan navy commandos. **Four persons were killed** which included two serving officers and an ex-navy officer. **All** four **were associated with Al Qaeda** in Indian Subcontinent (AQIS). It appears the officers on-board were to be joined by other militants who were to arrive by boat and stow away onboard. The plan was to get close to U.S. ships on the high seas and then turn the shipboard weapon systems on the Americans[[ix]](https://smallwarsjournal.com/jrnl/art/terrorist-threats-to-pakistan%E2%80%99s-tactical-nuclear-weapons-a-clear-and-present-danger%22%20%5Cl%20%22_edn9%22%20%5Co%20%22). Among those killed was former Pakistan Navy Lt. Owais Jakhrani. He had been recently dismissed from the Navy for harboring extremist views. He was the son of a serving senior police official in Karachi and he reportedly played the key role in recruiting naval officers for Al Qaeda. **The group was led by a ‘senior officer’** who was even saluted by a navy guard before other guards became suspicious of their presence in the dockyard and alerted commandos[[x]](https://smallwarsjournal.com/jrnl/art/terrorist-threats-to-pakistan%E2%80%99s-tactical-nuclear-weapons-a-clear-and-present-danger%22%20%5Cl%20%22_edn10%22%20%5Co%20%22). **The attackers were armed** with assault rifles, rocket launchers and hand grenades. **These weapons were smuggled** earlier into the dockyard by the attackers and were stored in dockyard lockers. What was more concerning is that **these officers had** a **complete appreciation of on-board procedures and offshore deployment of defensive vessels**. Before the operation they had given a presentation to Al Qaeda seniors on the operational details of the proposed attack. Al Qaeda in its media release said the “operation took place under the leadership of two brothers from AQIS, namely Owais Jakhrani (former Second Lieutenant in the Pakistan Navy) and Zeeshan Rafeeq (Second Lieutenant)”. AQIS also released the design sketch of the PNS Zulfiqar[[xi]](https://smallwarsjournal.com/jrnl/art/terrorist-threats-to-pakistan%E2%80%99s-tactical-nuclear-weapons-a-clear-and-present-danger%22%20%5Cl%20%22_edn11%22%20%5Co%20%22). Al Qaeda said its plan was to use the Zulfiqar to attack U.S. Navy vessels. In the aftermath of the attack four serving mid-level lieutenant commanders from Karachi were also arrested in the western city of Quetta, allegedly trying to flee to Afghanistan two days after the attempted attack on the Zulfiqar. Nothing was known about these mid-level officers and who were their other colleagues in Navy were till recently. In April 2016 a Pakistan Navy tribunal sentenced five serving Navy officers to death for their role in the attack on the Zulfiqar[[xii]](https://smallwarsjournal.com/jrnl/art/terrorist-threats-to-pakistan%E2%80%99s-tactical-nuclear-weapons-a-clear-and-present-danger%22%20%5Cl%20%22_edn12%22%20%5Co%20%22). It appears **there was a sufficiently large Al Qaeda module operating within the Pakistan Navy** as middle level naval commanders. It would not be difficult to imagine that there could be more such modules operating within Pakistan’s Army and Air Force. Imagine a situation where, during a crisis with India, a few of such insiders would be tasked to transport battlefield tactical weapons to the frontline. **Such a level of insider threat is what makes Pakistan’s nuclear arsenal extremely vulnerable**, more so during a situation of impending crisis, when the arsenal is being moved from the storage station to battlefield deployment. The insider–terrorist cocktail is the most dangerous and credible threat to Pakistan’s nuclear arsenal.

#### Terrorists get and detonate nuclear weapons – they have means, motive, and opportunity – most recent and predictive evidence that takes into account technological advances. Bunn 19.

Matthew Bunn is a Professor of Practice at Harvard University’s John F. Kennedy School of Government, and the faculty leader of the Project on Managing the Atom. Nickolas Roth is a Research Associate at the Belfer Center’s Project on Managing the Atom. William H. Tobey is a Senior Fellow at the Belfer Center for Science and International Affairs at Harvard Kennedy School. (“Revitalizing Nuclear Security in an Era of Uncertainty”, Harvard Belfer Center for International Affairs, Jan 2019, <https://scholar.harvard.edu/files/matthew_bunn/files/bunn_revitalizing_nuclear_security_in_an_era_of_uncertainty_2019.pdf>) SHS ZS

The risk that terrorists could get and use a nuclear bomb—turning the heart of a modern city into a smoldering radioactive ruin—remains very real. Sabotage of major nuclear facilities or dispersal of radioactive material in a disruptive “dirty bomb” also remain real risks. Motive. **Apocalyptic visions** or global ambitions **drove groups such as al Qaeda** and the Japanese terror cult Aum Shinrikyo **to seek** **nuclear weapons**. From the 9/11 attackers to Chechen rebels, who killed hundreds of children and their parents at a school in Beslan, Russia, to the Islamic State, which regularly televised its atrocities, it is clear that **some terrorist groups seek to inflict as many casualties as possible**, as cruelly as possible. Means. **There have been repeated cases of seizure of** stolen HEU or **plutonium**. While there have been no such seizures since 2011, **security assessments** and tests **continue to reveal important vulnerabilities**, in the United States and elsewhere. Moreover, non-nuclear criminal thefts and **terrorist attacks** **continue to** occur that **use tactics** and capabilities **that the security systems at many nuclear facilities would be hard-pressed to defend against**—ranging from substantial teams of heavily armed, well-trained attackers, to insider conspiracies, to the use of vehicles such as helicopters to get past multiple layers of site security systems. Opportunity. **Government studies** in multiple countries **have concluded** that **sophisticated terrorist groups could** plausibly **make a crude nuclear device**. Stopping such a device from being brought into a country and detonated remains a very challenging task, **given** the huge length of national borders, the immensity of normal traffic across them, and **the small size** and weak radiation **of** the **materials needed for a nuclear bomb**. Since our last report in 2016: • Al Qaeda and particularly the Islamic State have suffered numerous defeats which must necessarily make it more difficult for them to mount the organized effort necessary to perpetrate nuclear terrorism, although their intent to inflict massive damage abides; • Rapid and clandestine **radicalization of insiders has continued to present a threat** that most personnel reliability programs have been unable to address successfully; • The pace of seizures of fissile material outside of authorized control appears to have slowed, although what is known publicly about earlier cases offers little confidence that the leaks have been plugged; • **New technologies such as drones and cyber,** expanded deployments of small, mobile nuclear weapons, and construction of bulk processing facilities **will offer** **new opportunities for terrorists** **to strike** and present new challenges for those attempting to defend against them. On balance, the combination of nuclear terrorist means, motives, and opportunities presents somewhat less of a threat than it did two years ago. But as past experience makes clear, the future is highly uncertain; the world has likely not seen the last of powerful terrorist groups bent on mass destruction. And as adversaries make increasingly sophisticated use of technologies such as cyber and drones in the future, the threat to nuclear weapons, materials, and facilities could increase. To minimize risk in this uncertain future, continuous and determined efforts to improve security remain essential.

#### Terrorist acquisition of Pakistani nuclear material causes extinction.

Economist 16—The Economist (“If Terrorists Got Hold of a Nuclear Weapon,” July 4th, <http://worldif.economist.com.ezp-prod1.hul.harvard.edu/article/12137/stuff-nightmares>) SHS ZS

A scenario of a different kind may have been among the dangers depicted in a video shown to world leaders at Mr Obama’s nuclear-security summit in April. **Pakistan has** long **been a concern because it has** **at least 100 nuclear warheads** (and is producing more at a fair clip) **while at the same time being a crucible of jihadist terrorism**. Mark Fitzpatrick, a nuclear-proliferation expert at the International Institute for Strategic Studies who has spent time with the Pakistani nuclear authorities, notes that there have been no thefts, seizures or accidents involving Pakistan’s fissile material. But **there is** still **good reason to be fearful**. **IS has boasted** in its online magazine, Dabiq, that **it could purchase a weapon from corrupt officials in Pakistan**. In the past few years Pakistan has developed a number of short-range battlefield nuclear weapons as a counter to India’s growing conventional military superiority. **These weapons** are destabilising at best because of their proximity to the frontline of any conflict and the pressure to “use them or lose them”. But they **suffer from another defect**: **at times of crisis they would be dispersed and put under the command of** relatively **junior officers**. **There are intelligence reports of “mated” nuclear weapons** (devices with all their component parts) **being driven around** Islamabad **in unprotected civilian vans**. According to some estimates, up to **40% of Pakistan’s middle-ranking army officers are** to some extent **radicalised**. **The possibility** of rogue elements, with knowledge of where small nukes were to be deployed, **working with a terrorist group is real** enough, as is a jihadist attack on a base where such weapons are kept. Supposedly the enabling and authenticating codes that arm the weapons are in the hands of the civilian-led National Command Authority, but in reality it is the army that keeps them. What **if a jihadist group obtained an armed battlefield missile with the intention of triggering a nuclear exchange** with India? **About 20m people would be killed directly**, b**ut the massive firestorms would** send up to 5m tonnes of smoke into the stratosphere, **leading to a “nuclear winter**” in which crops around the world failed and hundreds of millions died of starvation. The thing about nuclear nightmares is that they come in all shapes and sizes.

### Solvency (0:21)

#### I defend the resolution: The Republic of India and the Islamic Republic of Pakistan ought to eliminate their nuclear arsenals.

**CND 19** [December 2019. Campaign for Nuclear Disarmament. India and Pakistan. <https://cnduk.org/wp-content/uploads/2018/02/India-and-Pakistan-1.pdf>] CL // SHS ZS

India and Pakistan share a turbulent history. When the British-controlled India became independent in 1947, two new states were founded – present day India and Pakistan. In the process, over 10 million people were displaced and up to a million killed. Since independence, the two countries have gone to war four times. India began nuclear research pre-independence in 1944, and subsequently strong and divergent views were held as to whether India should develop nuclear weapons or not. By 1965, India – together with Sweden – was leading attempts to halt proliferation and limit the nuclear weapons capability of the nuclear weapons states. Yet **conflict with China** – which was developing nuclear weapons, with its first test in 1964 – **led to a decision to develop a nuclear weapons capacity**. In 1974, **a nuclear device was tested** – code-named Smiling Buddha – a move condemned by the international community. The US imposed sanctions, although India did not move at this stage to the production of nuclear weapons. However, **in 1998, India conducted further nuclear tests** and announced its nuclear doctrine of ‘credible minimum deterrence’, based on ‘retaliation only’. **Pakistan started to develop nuclear weapons** in 1972 **in response to India**’s developing nuclear weapons programme and after its defeat by India and the subsequent gaining of independence of Bangladesh (formerly East Pakistan) in the Indo-Pakistani War of 1971. The programme was stepped up after India’s Smiling Buddha test in 1974. By the 1980s, it is believed Islamabad had developed the technology sufficiently to produce a nuclear weapon. After India’s 1998 nuclear tests, **Pakistan itself carried out a nuclear test**. Nuclear Weapon States **India formally declared itself a nuclear weapon state in 1998**, after two rounds of nuclear tests. **A month later, Pakistan retaliated** with similar tests and declaration, leading to fears of an escalating arms race. The country has sought to portray itself as a ‘responsible’ nuclear power, even though it is not a signatory to the NPT or the Comprehensive Test Ban Treaty (CTBT). For its part, Pakistan has said that it will only sign the NPT and CTBT once India does so. Pakistan is currently blocking negotiations on the Fissile Material Cut-Off Treaty (FMCT), which is aimed at stopping the further production of nuclear weapon fissile material. Capabilities I**t is believed that India has between 130-140nuclear warheads**, which can be used with land-based or seabased missiles as well as on aircraft. **Pakistan** in turn **has between 150-160warheads** for delivery by seabased, aircraft and land-based missiles, though neither country has officially confirmed these figures. India does not maintain a nuclear force on high alert and maintains a no first use policy, although the government has stated it could use them in retaliation to a chemical or biological attack, or to protect Indian forces operating in Pakistan. Islamabad, however, has refused to adopt a no first use policy and maintains it would be prepared to attack India first. It is believed though that Pakistan stores its warheads and delivery vehicles separately in times of peace. Dangerous developments While Pakistan has worked with China on developing its nuclear capacity, India has signed a cooperation agreement with the United States which allows the former to engage in international nuclear trade. India has also concluded a deal on nuclear trade with Canada and Australia. Pakistan has been developing nuclear-capable short-range missiles that appear to be intended for a tactical nuclear attack. This is likely in part to be because of Pakistan’s need to counter India’s growing missile defence system. **Concerns have been raised that** these **nuclear weapons could fall into the hands of terrorists** operating in the region, as Pakistan is affected by violent Islamist militancy. Conclusion **Both India and Pakistan are believed to be modernising and expanding their nuclear weapons** arsenals, actions which threaten regional and international peace. **Escalating tension** between the countries because of their rivalry over the disputed territory of Kashmir **has underlined the threat of war** between the nuclear armed states. **The possibility of weapons of mass destruction being used** in a possible future conflict **causes deep concern**. **India and Pakistan should stop making new nuclear weapons and get rid of the ones they do have**. **This**, alongside becoming non-nuclear signatories of the NPT and CTBT, **would be a huge step forward for the security of both countries and** for **the international community** as a whole.

#### The aff solves—the root cause of conflict are nuclear arsenals and a total elimination is key.

**Mccall 19** [Rosie Mccall, 10/2/19, A NUCLEAR WAR BETWEEN INDIA AND PAKISTAN COULD KILL TWICE AS MANY PEOPLE AS WWII, STUDY FINDS, https://www.newsweek.com/nuclear-war-india-pakistan-death-toll-ww2-1462550, Mccall graduated from Warwick University with a degree in history] CL // SHS ZS

"I think we have been lucky in the 74 years since that last nuclear war that we have not had another due to mistakes, panic, misunderstanding, technical failures or hacking," Robock told Newsweek. "**If the weapons exist, they can be used**. And **the ongoing conflict in Kashmir has the potential to escalate**." Neither party is likely to initiate a nuclear conflict without major provocation, the study's authors wrote. However, they did warn of a new Cold War. "**India and Pakistan may be** repeating the unfortunate example set by the United States and Russia during the 'Cold War' era: that is, **building destructive nuclear forces far out of proportion** to their role in deterrence," they write. While India and Pakistan do not have anything like the nuke-power of the US or Russia—nations that, combined, possess 93 percent of the world's estimated 13,900 nuclear weapons—both are continuing to grow, rather than stabilize, their arsenal. India, for example, is thought to have a stockpile of 130 to 140 nuclear warheads. By 2025, they could have 200. "**The only way to prevent [nuclear conflict] is to eliminate them**," [said](https://www.eurekalert.org/emb_releases/2019-10/ru-nwb092419.php) Robock.

## Underview

#### [1] Aff gets 1AR theory – It’s key to check neg abuse, no 1AR theory means neg can be infinitely abusive because nothing can stop them, which outweighs because it means aff can’t win. Drop the debater on 1AR theory because the aff can’t split the 2ar between both theory and substance. No neg RVIs since the neg can dump on the shell for 6 minutes and make the 2AR impossible. Competing interpretations because reasonability collapses – you have to win offense to your justification which concedes the validity of the theory. 1AR Theory before neg theory – a) the neg can win their shell in the long 2nr but it’s impossible for the aff to beat the shell back in the 2ar b) key to check back against abusive neg strategies.

5:20

## Methods

#### [1] Policy debate over a governmental proposition fosters advocacy skills that empower students and benefit all forms of potential political engagement.

Leek 16 [Danielle R. Leek, professor of communications at Grand Valley State University, “Policy debate pedagogy: a complementary strategy for civic and political engagement through service-learning,” Communication Education, 65:4, 399-405] SHS ZS

* Volunteerism
* Political skills
* Research skills – engagement in future
* Understand social problems

Service-learning, however, is not without its critics. Eby (1998), for example, argues that the type of reflection done in service-learning promotes too simplistic an understanding of social issues. Often students are asked about their personal feelings towards their service experience and then called upon to abstract that experience to broader social policy when instructors have spent little to no time in class exploring the relevant political dimensions of an issue. This type of reflection serves to make the material reality of social problems a function of a student’s personal experience. A student who volunteers at an animal shelter, but has little information about regulations covering stray animals in the community, for example, is unlikely to offer a sophisticated response if asked about whether or not the local police should be involved in investigating animal abuse complaints. The prevalence of shallow knowledge development in service-learning compels Eby to call for **student reflection** that also **includes “critical analysis and understanding of the theoretical issues**, service strategies, **social change**, agency policies, social policies, **and community structure**” involved in a service-learning experience (p. 7). **Students should be able to call on a range of knowledge** and information **in their reflections**. Only then can they gain the full benefits of service-learning. Colby (2008), Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, similarly challenges service-learning educators to attend to the two dimensions of engagement necessary for democratic practice. “**Political and apolitical civic engagement**,” Colby argues, ar**e both [is] valuable to democratic communities**. **Service-learning** often **favors civic engagement by encouraging voluntarism and a philanthropic mindset**. This type of activity can, but seldom does, **lead students to “draw connections” to systemic issues or practices**. Students who do service work “generally encounter very little encouragement to get involved in politics, even broadly defined.” This leaves many students con- fident about the need to volunteer, but uncertain “about how they might be politically engaged, and what that might involve.” Moreover, Colby contends, **civic participation through service “can lead to the development of politically relevant skills**” such as writing memos or making persuasive public appeals, but often it does not. Activities such as cleaning up a river, or tutoring children, do not place students in roles where political skills are developed. **To get the most out of service-learning, students need concurrent attention to political learning, which encourages engagement with public policy and electoral issues, while fostering opportunities to build skills needed for political activities** (Colby, 2008). Helping students gain knowledge about politics and political processes is a first-step towards accomplishing this goal (Delli Carpini & Keeter, 1996). But **political learning should be more than** acquiring a list of **facts**. It is what takes place as students discover the connection between policy, institutional practice, and the status quo. **Political learning is happening when students** come to **understand that public policy and practice can and do change**, and that they influence how policy-making happens, even as an ordinary member of the public. Politic**al engagement happens when students develop the skills necessary to help make political change possible**. As Colby (2008) explains: **Teaching for political understanding** and engagement **involves helping students find political issues they can be passionate about while also staying open to opposing views**. It involves teaching students to be sensitive to others’ feelings about hot-button issues while also encouraging them to be tough and slow to take offense themselves. Students also need to develop a thoughtful, reasoned approach to politics without becoming immobilized by doubt. Such attention to the dual roles of civic and political engagement may also address another common criticism of service-learning programs in higher education. By challenging students to engage the system-level ideology and praxis relevant to social experience, educators can help mitigate against service-learning experiences that promote power inequalities by situating students as charity providers to needy others. We also must do more to reward community partners for the substantial time they invest in student participants. Because com- munity organizations often serve vulnerable populations such as immigrants and children, it is imperative that **service-learning experiences lead participants to engage politically and ethi- cally in and beyond the classroom** in order to justify the short-term disruptions and costs associated with bringing a group of students into a civic space (Tryon et al., 2008). **One way to address these criticisms is to incorporate policy debate into service-learning programs**. In the remainder of this essay, I show how integrating policy debate into the pedagogy of service-learning deepens political learning and promotes the acquisition of skills essential to political engagement. Policy debate in the service-learning classroom In policy debate, students are asked to consider whether a particular course of action should be taken, generally by state institutions such as the United States federal government, or its respective branches, such as the Supreme Court or the Congress (Snider & Schnurer, 2002). A policy debate can involve any institutional actor or agent such as the Federal Emergency Management Agency, the United Nations, the International Criminal Court, and so on. Questions of policy can address broad global issues, such as “Should the United States federal government sign a new nuclear treaty with Iran?” Or they might consider narrow rules for legal action, such as “Should the Michigan Department of Treasury require individ- uals to pay taxes online?” When connected to a service-learning experience, educators might set aside time for students to debate a relevant policy question. Using previous examples, stu- dents working on the health campaign might also be asked to debate the question, “Should the City of Grand Rapids provide mobile health clinics in the downtown area?” Chemistry students could debate, “Should the federal government require a universal science curricu- lum in all high schools?” No matter the topic, students should have the opportunity to engage multiple perspectives on the question, including speaking on the affirmative to support a new policy and on the negative in opposition to a change in the status quo. Students may be asked to work with one or more partners to research and develop materials that can be used in their speeches or in question-and-answer periods related to their arguments. Especially for readers familiar with extracurricular policy debate competitions in high schools or college, this depiction of what policy debate entails may seem overly simplistic. Yet, **even basic consideration of policy issues related to a service-learning experience can improve a student’s odds of political learning**. **Through policy debate, students can develop information literacy and learn how to make critical arguments of fact**. This experience is politically empowering for students who will also build confidence for political engagement. Information literacy While there are many definitions of information literacy, the term generally is understood to mean that a student is “able to recognize when information is needed, and have the ability to locate, evaluate, and use effectively the information needed” for problem- solving and decision-making (Spitzer, Eisenberg, & Lowe, 1998, p. 19). Information exists in a variety of forms, in visual data, computer graphics, sound-recordings, film, and photographs. Information is also constructed and disseminated through a wide range of sources and mediums. Therefore, “information literacy” functions as a blanket term which covers a wide range of more specific literacies. Critiques of service-learning’s knowl- edge-building power, such as those articulated by Eby (1998) and Colby (2008), are chal- lenging both the emphasis the pedagogy places on information gained through experience and the limited scope of political information students are exposed to in the process. **Policy debate can augment a student’s civic and political learning by fostering extended information literacies**. Snider and Schnurer (2002) identify policy debate as an especially research intensive form of oral discussion which requires extensive time and commitment to learn the dimensions of a topic. Understanding policy issues calls for contemplating a range of materials, from traditional news media publications to court proceedings, research data, and institutional propaganda. Moreover, the nature of policy debate, which involves public presentation of arguments on two competing sides of a question, motivates students to go beyond basic information to achieve a more advanced level of expertise and credibility on a topic (Dybvig & Iverson, n.d.). This type of work differs from traditional research projects where students gather only the materials needed to support their argument while neglecting contrary evidence. Instead, the “**debate research process encourages a kind of holistic approach**, where students need to pay attention to the critics of their argument because they will have to respond to those attacks” (Snider & Schnurer, 2002, p. 32). In today’s attention economy, cultivating a sensibility for well- rounded information gathering can also aid students in recognizing when and how the knowledge produced in their social environments can be effectively translated to specific contexts. The “cultural shift in the production of data” which has followed the emergence of Web 2.0 technologies means that all students are likely “prosumers”—that is, they consume, produce, and coproduce information online all at the same time (Scoble, 2011). Coupling service- learning with policy debate calls on students to apply information across registers of public engagement, including their own service efforts and their own public argumentation, in and outside of their debates. Information is used in the service experience, which in turn, informs the use of information in debates, where students then produce new information through their argumentation. The process is what Bruce (2008) refers to “informed learning,” or “using information in order to learn.” When individuals move from learning how to gather materials for a task to a cognitive awareness and understanding of how the information-seeking process shapes their learning, they are engaged in informed learning. Through this process, students can come to recognize that information management and credibility is deeply disciplinary and historically con- textual (Bruce & Hughes, 2010). This understanding, combined with practical experience in locating information, is a critical missing element in contemporary political engage- ment. Over 20 years ago, Graber (1994) argued that one of the biggest obstacles to political engagement was not apathy, but a gap between the way news media presents information during elections, and the type of information voters need and will listen to during electoral campaigns. The challenge extends beyond elections into policy-making, especially as younger generations continue to revise their notions of citizenship away from institutional politics towards more social forms of activism (Bennett, Wells, & Freelon, 2011). For stu- dents to effectively practice more expressive forms of citizenship they need experience managing the breadth of information available about issues they care about. As past research indicates a strong correlation between service-learning experience and the motiv- ation and desire for post-graduation service, it seems likely that students who debate about policy issues related to service areas will continue their informed learning practices after they have left the classroom (Soria & Thomas-Card, 2014). Arguing facts In addition to building information literacies, **students who combine policy debate with service-learning can practice “politically relevant skills,” which will help them have confidence for political engagement in the future**. As Colby (2008) explains, this confidence should be tempered by tolerance for difference and differing opinions. On the surface, debating about institutional politics might seem counterintuitive to this goal. Politicians and the press have a credibility problem among college-aged students, and this leaves younger generations less inclined to feel obligated to the state or to look to traditional modes of policy- making for social change (Bennett et al., 2011; Manning & Edwards, 2014). This lack of faith in government and media outlets also makes political argument more difficult (Klumpp, 2006). Whereas these institutions once served as authoritative and trustworthy sources of information, the credibility of legislators and journalists has decreased over the last 40 years or so. Today, politicians and pundits are viewed as political actors interested in spectacle, power, and profit rather than truth-seeking or the common good. While some political controversies are rooted in competing values, Klumpp (2006) explains that arguments about policy are more often based in fact. Indeed, when engaged in public arguments over questions of policy, people tend to “invoke the authority of facts to support their positions.” Likewise, “the governmental sphere has developed elaborate legal and deliberative processes in recognition of the power of facts as the basis for a decision.” Yet, while shared values are often quickly agreed upon, differences over fact are more difficult to resolve. **Without credible institutions of authority that can disseminate facts, public deliberation requires more time, information-gathering, evaluation, and reasoning.** The Bush administration’s decision to take military action in Iraq, for example, was presumably based on the “fact” that Saddam Hussein had acquired weapons of mass destruction. This has now become a classic example of poor policy-making grounded in faulty factual evidence. This shortcoming is precisely why policy debate is a valuable complement to service- learning activities. **Not only can students use their developing literacies to better understand social problems, they can also learn to access a broader range of knowledge sources, thereby mitigating the absence of fact-finding from traditional institutions.** Fur- thermore, policy advocacy gives students experience testing the reasoning underlying claims of fact. **Issues of source credibility, analogic comparisons, and data analysis are three examples of the type of critical thinking skills that students may need to apply in order to engage a question of policy** (Allen, Berkowitz, Hunt, & Louden, 1999). While the effect may be to undermine government action in some instances, in others students will gain a better understanding of when and where institutional activities can work to make change. As students gain knowledge about the relationship between institutional structures and the communities they serve, they grow confidence in their ability to engage in future conversations about policy issues. Zwarensteyn’s (2012) research high- lights these sorts of effects in high school students who engage in competitive policy debate. Zwarensteyn theorizes that **even minimal increases in technical knowledge about politics can translate to significant increases in a student’s sense of self-efficacy**. Many students start off feeling very insecure when it comes to their mastery of insti- tutional politics; policy debate helps overcome that insecurity. Moreover, because **training in policy debate encourages students to address issues as arguments rather than partisan positions,** it encourages them to engage policy-making without the hostility and incivility that often characterizes today’s political scene.

#### [2] Opposition to nuclear arsenals is essential to disarmament – education can effectively stigmatize nuclear arsenals and spill over. Nahory 17.

Nahory 17 Céline Nahory (represents Peace Boat in the International Steering Group of the International Campaign to Abolish Nuclear Weapons and coordinates the Global Article 9 Campaign. She also sits in the International Council of the International Peace Bureau and serves as an advisor to URBZ.), “Education: A weapon for peace. The case of the nuclear ban treaty” in Celebrating 15 Years of Disarmament and Non-Proliferation Education, UNODA Occasional Papers. No. 31, December 2017. Book. WJ // SHS ZS

**Education** is an empowering force—a force that creates knowledge, builds confidence, breaks down barriers and creates opportunities never thought possible before. This is the vision Peace Boat has followed over its more than 30 years of activities promoting education for peace, disarmament and sustainability. It **is** also **the model that drove the humanitarian disarmament** process that led to the adoption, on 7 July 2017, of the Treaty on the Prohibition of Nuclear Weapons (TPNW).1 Seventy-two years **after the atomic bombs were dropped** on Hiroshima and Nagasaki, **a** significant **majority of the world’s Governments adopted a** new **treaty banning** the only **weapons of mass destruction** yet to be prohibited—nuclear weapons. The Treaty places nuclear weapons in the same category under international law as the other major kinds of indiscriminate and inhumane weapons—biological and chemical weapons, anti- personnel landmines and cluster munitions. In a first for a treaty pertaining to nuclear weapons, **the TPNW focuses on international human rights and humanitarian law**, **framing nuclear weapons in terms of the threat they pose to humanity** rather than terms driven by military doctrines and power politics. **This change of paradigm is the result of the Humanitarian Initiative** that drove the process. **Education about the impact of nuclear weapons enabled civil society** and a majority of the world’s Governments **to reclaim the international agenda** to prohibit and stigmatize nuclear weapons. The Humanitarian Initiative to prohibit nuclear weapons **The TPNW** is a groundbreaking, progressive treaty in many ways, not only insofar as it unequivocally and categorically prohibits, under any circumstances, any activities related to nuclear weapons—their development, testing, production, manufacture, possession, transfer, use or threat of use, or any form of assistance to these activities. It **is** also **remarkable** **in terms of the process that led to its adoption**, known as the Humanitarian Initiative. This grew out of deep concern over the catastrophic humanitarian consequences that would occur if they ever were used. In 1945, immediately **after the first nuclear bombs were dropped** on Hiroshima and Nagasaki, **the International Committee of the Red Cross**—appalled by the unspeakable destruction, death and suffering they generated—**started calling on the world to ensure that nuclear weapons were never used again**. A year later, the first resolution of **the** newly created Uni**ted Nations General Assembly established a commission charged to make proposals for “the elimination** from national armaments **of atomic weapons** and of all other major weapons adaptable to mass destruction”.2 Yet, **despite decades of rhetoric** in favour of a nuclear-weapon-free world, **the nine nuclear- weapon States together still possess** around 15,000 **nuclear weapons** and have failed to develop any detailed plans to eliminate their arsenals. **Humanitarian concerns have long driven the regulation of war** and weapons through international humanitarian law, as well as disarmament initiatives—as seen with biological and chemical weapons, landmines, cluster munitions, small arms and light weapons. The Humanitarian Initiative on nuclear weapons took over seven decades to gain traction. Long promoted by civil society, **it started gaining momentum** in 2010, **with the recognition in the outcome document** of the review conference of the Treaty on the Non-Proliferation of Nuclear Weapons of the “catastrophic humanitarian consequences of any use of nuclear weapons”.3 Three intergovernmental conferences on the humanitarian consequences of nuclear weapons were held, in Oslo in 2013, and in Nayarit and Vienna in 2014. **These led to the conclusion that** **nuclear weapons pose a threat to the whole of humanity** and there can be no legal, ethical or moral justification for their possession, use or threat of use. **In December 2016, the United Nations General Assembly mandated** a conference “**to negotiate a legally binding instrument to prohibit nuclear weapons**, leading towards their total elimination”, which resulted in the adoption on 7 July 2017 of the TPNW, with the support of 122 States. How did we get here? The Humanitarian Initiative as an education process From its outset, **the Humanitarian Initiative has** sought to **shift the terms of the nuclear disarmament debate from the security dimension** that a minority of States attributes to these weapons, **to their humanitarian and environmental impact**, the risk they pose and thus their lack of conformity to international humanitarian, human rights and environmental law. T**o do so, a large-scale education process was set in motion.** Inspired by earlier disarmament processes, notably on landmines and cluster munitions, civil society in general and in particular the International Campaign to Abolish Nuclear Weapons (ICAN), with its membership of over 400 organizations in 100 countries, played a significant role. Working with experts, practitioners and communities directly affected by nuclear weapons, **civil society gathered**—whether deliberately, by accident or by negligence—**new knowledge on the actual risks of nuclear detonation**. Such **efforts revealed** that **no State or** international body **would be able to address the immediate humanitarian emergency that would result from any nuclear weapon** use nor its long-term consequences. Furthermore, civil society highlighted the global impact of the use of nuclear weapons on climate, health, the environment and food security for current and future generations.5 **The Humanitarian Initiative** also **built bridges between different constituencies**. Indeed, th**e large education process around the risks** and consequences of nuclear weapons **made clear that these weapons were not merely an issue of the past**, but very much one of the present and of the future, and one which affects humanity as a whole. As a direct result, **it created a movement that** not only brought together disarmament activists, but also **galvanized** the **commitment and activism** of youth, women, religious leaders, aid workers, doctors, scientists, trade unions, members of parliament, city officials and more. In this process, the voices of victims and survivors of the atomic bombs in Hiroshima and Nagasaki (known as hibakusha), as well as those of nuclear testing from Australia, the Marshall Islands, French Polynesia, the United States and others, played a crucial role. Indeed, hearing their first-hand accounts of the horror they experienced, of the lasting legacy of nuclear weapons and of the physical and psychological suffering they have faced ever since, has been an eye-opening experience that served as a foundation for the process itself. Peace Boat Hibakusha Project Well aware of the transformative power of hearing directly from hibakusha and convinced that their voices should be at the centre of the Humanitarian Initiative to ban nuclear weapons, Peace Boat launched the “Global Voyages for a Nuclear-Free World: Peace Boat Hibakusha Project” in 2008. The project consists of inviting hibakusha of Hiroshima and Nagasaki to join around-the-world voyages and to share their tragic experiences. In so doing, **the initiative educates people about the devastating humanitarian impact of nuclear weapons**, **engages policymakers** and catalyses public support to prohibit nuclear weapons as a step towards the abolition of such weapons. As part of these efforts, Peace Boat cooperates with international groups and networks, including ICAN, Hibakusha Stories and Mayors for Peace. To date, 10 such voyages have taken place, with the participation of over 170 hibakusha in the project. Through these voyages, hibakusha have visited over 20 cities, where they held public testimony sessions and met with high-level officials in foreign ministries, parliaments and city halls. In the months leading to the negotiation conference, Peace Boat made a special effort to organize such high-level meetings with officials in countries that were not supportive of the ban, including Belgium, Finland, Greece, Italy, the Netherlands, Norway, Spain, Sweden and the United Kingdom. Looking straight into the officials’ eyes, hibakusha told their stories and urged them to convince their Governments to participate in the negotiations and support the TPNW. As a result, some city councils and regional assemblies adopted resolutions calling on their central government to do more on the ban.6 Hibakusha also held press conferences, participated in cultural and educational programmes, and met with other victims and survivors of war and weapons, including survivors of nuclear testing. Breaking down barriers By sharing their experiences, hibakusha, who are now on average over 80 years old, have sought to convince the world of the urgency of abolishing nuclear weapons to prevent anyone else from ever experiencing the inhumanity of these weapons. Their voices have put a human face to the facts and evidence about the impact of nuclear weapons. Their voices have moved people, including those in official positions, at a personal level. And by bringing the question of nuclear weapons to a reality people can relate to, the hibakusha’s voices have significantly contributed to shifting the nuclear disarmament discourse, hitherto confined to technical and strategic considerations reserved for experts, into something everyone can get involved in. As a result, the Humanitarian Initiative opened a space for civil society to mobilize and act at the community, national, regional and global levels. In the course of a few years, **the debate on nuclear weapons became one no longer perceived as an issue of the cold war, but a matter that had to be addressed urgently**. Recognizing the crucial expertise and mobilizing power civil society can offer, **non-governmental organizations became a driving force in carrying forward a diplomatic process**—one that channelled cooperation among civil society, the International Committee of the Red Cross, United Nations agencies and Governments. Knowledge is power **Educating the world about the actual risks and impact of any nuclear detonation** not only succeeded in changing the nuclear disarmament narrative. It also **led to a paradigm shift**, **which revitalized multilateralism** after decades of stalled efforts in United Nations disarmament forums, where nuclear-weapon States have dominated the nuclear disarmament debate and blocked any attempts to significantly move forward. “Democracy has come to nuclear disarmament”, said Ambassador Juan Carlos Mendoza of Costa Rica.7 Indeed, the descriptions and **indisputable evidence** presented as part of the Humanitarian Initiative **created a sense of shared** **responsibility** among a majority of States and led them **to become full-fledged stakeholders** in nuclear disarmament. As Ambassador Alexander Kmentt of Austria put it, “We have witnessed a clear shifting of the parameters, the focus, the tone and the balance of the discussion and the engagement of all countries of the treaty on nuclear weapons. Non-nuclear-weapon States are today more empowered to demand their security concerns be taken in consideration on an equal basis.”8 The Humanitarian Initiative opened a space Governments could claim to take action. A number of non-nuclear-weapon countries, under the leadership of a core group of States, notably Austria, Brazil, Indonesia, Mexico, Nigeria, South Africa and Thailand, were determined to pursue the imperative of human security for all and decided to reclaim the global security agenda. And so, the plan to develop a nuclear ban treaty was set in motion. The Washington Post described the process as an “uprising” by a majority of nations.9 This may be dramatic terminology, but the initiative nonetheless represented a bold and unprecedented move to shake the status quo imposed by nuclear powers. Education as a political tool As significant the adoption of the TPNW is, it is “just the beginning”, as Ambassador Thomas Hajnoczi of Austria rightly stated.10 The Treaty opened for signature on 20 September 2017, when Heads of State and Government met in New York for the United Nations General Assembly’s opening session. By the end of 2017, 56 nations had already signed it and 3 had ratified it. The Treaty will enter into force once 50 countries have signed and ratified it. Yet, the ultimate goal is to realize universal adherence to the Treaty in order to achieve a nuclear-weapon free world. Of course, although the Treaty provides a pathway for States possessing nuclear weapons to join, it is not expected that they will join anytime soon. In fact, France, the United Kingdom and the United States have made clear that they will not,11 and they are putting pressure on other Governments not to join either. In that sense, the very existence of the TPNW is already having an impact. Otherwise, how can the active opposition of nuclear-weapon States be explained? The Treaty builds a new international legal norm. Based on experiences with other weapons, it is clear that prohibition and stigmatization have always preceded abolition. It is also proven that weapon-prohibition treaties lead to concrete changes in policies and behaviours, including in States that are not party to these treaties. To strengthen this norm, it is important that a large number of countries sign and ratify the TPNW at the earliest. In this new phase, civil society—both in non-nuclear- and nuclear-weapon States—has an important role to play in educating the global public about this new norm; in getting Governments to support, sign and ratify the Treaty; and in ensuring that it is enforced. Much of the groundwork and methods are already in place. Over the years, **civil society has acquired extensive experience in educating and mobilizing the public**. In addition to continuing to raise awareness about the dangers of nuclear weapons, **efforts must be directed at informing the public of the existence of the new treaty** and encouraging citizens to demand that their Governments come on board. The TPNW does recognize the importance of peace and disarmament education in all its aspects as a way to create change. It is now time to also step up our efforts to make it happen; in the countries that sign the Treaty, there will be a need to ensure that it is implemented. In some cases, it will require developing national legislation and will open up the possibility to elaborate additional measures that build on the Treaty. In countries hosting United States nuclear weapons on their soil or relying on them for their security, the presence of nuclear weapons on their territories needs to be stigmatized, behaviours that go against the norm of the Treaty need to be denounced and, more generally, the call to disengage from such policies needs to be made more insistent. The TPNW has created avenues for the citizens of these countries, often overwhelmingly anti-nuclear, to question their Government’s policies and demand change. “The beginning of the end of nuclear weapons” A few years ago, when civil society, including Peace Boat and ICAN, started calling for a treaty prohibiting nuclear weapons as a step towards their elimination, many perceived the demand as naïve and unrealistic. Today the world has a strong treaty, supported by a large majority of the world’s Governments and citizens. Ed**ucation paved the way for the global moral, ethical and political consensus** that the nuclear ban treaty epitomizes. In addition to being illegitimate and immoral, the new treaty now makes nuclear weapons illegal. It will, over time, make retaining such weapons or even defending their very existence increasingly difficult. “**This is the beginning of the end of nuclear weapons**”, rejoiced Setsuko Thurlow, a hibakusha from Hiroshima.12 Yet, the road ahead towards abolition is long. We now have the responsibility to carry on the hibakusha’s struggle, and to redouble efforts in raising awareness about the new treaty, its principles and norms in order to ensure universal treaty adherence and the elimination of nuclear weapons. We owe it to hibakusha to pass on their legacy and to ensure that there will be no more Hiroshima, no more Nagasaki, no more hibakusha.

# Extensions

## Escalation

### Kashmir

#### Extend the escalation advantage – India and Pakistan have been in a historical conflict over Kashmir and recent terror attacks are paving the way to a nuclear war – that’s Waquar 19 – which would lead to extinction – Starr 15.

### Preemptive Strikes

#### Extend the escalation advantage – India and Pakistan both have incentives to launch preemptive strikes to take out each other’s nuclear capabilities, but these would likely fail and lead to all out nuclear war –Krzyzaniak 19 – which ends in extinction – Starr 15.

### Subs

#### Extend the escalation advantage – India and Pakistan are developing nuclear submarines capable of launching misses, which are uniquely dangerous because subs make launching nukes too easy, lack proper communication methods, and are prone to miscalc. – Hundley 18 – which ends in extinction – Starr 15.

### Pakistan Believes First Strike

#### Extend the escalation advantage – Pakistan believes India is developing technologies and preparing to attack but in reality India is unprepared to fend of a Pakistani attack proplery which would lead to war – that’s Claray and Narang 19 – and result in extinction – Starr 15.

## Terrorism

#### Extend the Terrorism advantage – Pakistan’s nukes are at a unique risk of being taken by terrorists due to the poor security and extremist infiltration in army – that’s Shapoo 17 – and if terrorists got their hands-on weapons, they have the motivation and means to set them off – Bunn 19, which leads to extinction – Economist 16.

# Frontlines V3

## AT DAs/PICs

### Deterrence DA

Nukes only weapon preventing war.

#### [1] Deterrence theory fails – historical analysis checks. Barash 18.

[Barash, David P. “Nuclear deterrence continues to dominate international relations. Yet there is no proof it ever worked, nor that it ever will.” The Guardian. Published 14 Jan 2018] SHS ZS

* Historical analysis checks back
* Requires arsenal remain invulnerable
* Assumes rationality of leader
* No way to know when country obtain enough nukes

Every government that now possesses nuclear weapons claims that they deter attacks by their threat of catastrophic retaliation. Even a brief examination, however, reveals that **deterrence is not remotely** as **compelling** a principle as its reputation suggests. In his novel The Ambassadors (1903), Henry James described a certain beauty as ‘a jewel brilliant and hard’, at once twinkling and trembling, adding that ‘what seemed all surface one moment seemed all depth the next’. The public has been bamboozled by the shiny surface appearance of deterrence, with its promise of strength, security and safety. But wh**at has been touted as profound strategic depth crumbles with surprising ease** when subjected to critical scrutiny. **Let’s start by considering the core of deterrence theory: that it has worked**. Advocates of nuclear deterrence insist that we should thank it for the fact that a third world war has been avoided, even when tensions between the two superpowers – the US and the USSR – ran high. Some supporters even maintain that deterrence set the stage for the fall of the Soviet Union and the defeat of Communism. In this telling, the West’s nuclear deterrent prevented the USSR from invading western Europe, and delivered the world from the threat of Communist tyranny. **There are**, however, **compelling arguments suggesting** that **the US and the former Soviet Union avoided world war for several** possible **reasons**, most **notably because neither side wanted to go to war**. Indeed, **the US and Russia never fought a war prior to the nuclear age**. Singling out nuclear weapons as the reason why the Cold War never became hot is somewhat like saying that a junkyard car, without an engine or wheels, never sped off the lot only because no one turned the key. Lo**gically speaking, there is no way to demonstrate that nuclear weapons kept the peace during the Cold War, or that they do so now**. **Perhaps peace prevailed between** the two superpowers simply because **they had no quarrel that justified fighting a terribly destructive war**, even a conventional one. **There is no evidence**, for example, that the **Soviet leadership ever contemplated trying to conquer western Europe**, much less that it was restrained by the West’s nuclear arsenal. Post facto arguments – especially negative ones – might be the currency of pundits, but are impossible to prove, and offer no solid ground for evaluating a counterfactual claim, conjecturing why something has not happened. In colloquial terms, if a dog does not bark in the night, can we say with certainty that no one walked by the house? Deterrence enthusiasts are like the woman who sprayed perfume on her lawn every morning. When a perplexed neighbour asked about this strange behaviour, she replied: ‘I do it to keep the elephants away.’ The neighbour protested: ‘But there aren’t any elephants within 10,000 miles of here,’ whereupon the perfume-sprayer replied: ‘You see, it works!’ We should not congratulate our leaders, or deterrence theory, much less nuclear weapons, for keeping the peace. What we can say is that, as of this morning, those with the power to exterminate life have not done so. But this is not altogether comforting, and history is no more reassuring. The duration of ‘nuclear peace’, from the Second World War to the end of the Cold War, lasted less than five decades. More than 20 years separated the First and Second World Wars; before that, there had been more than 40 years of relative peace between the end of the Franco-Prussian War (1871) and the First World War (1914), and 55 years between the Franco-Prussian War and Napoleon’s defeat at Waterloo (1815). Even in war-prone Europe, decades of peace have not been so rare. Each time, when peace ended and the next war began, the war involved weapons available at the time – which, for the next big one, would likely include nuclear weapons. **The only way to make sure that nuclear weapons are not used is to make sure that there are no such weapons**. **There is** certainly **no reason to think that the presence of nuclear weapons will prevent their use**. The first step to ensuring that humans do not unleash nuclear holocaust might be to show that the Emperor Deterrence has no clothes – which would then open the possibility of replacing the illusion with something more suitable. It is possible that the post-1945 US-Soviet peace came ‘through strength’, but that need not imply nuclear deterrence. It is also undeniable that the presence of nuclear weapons on hair-trigger alert capable of reaching each other’s homeland in minutes has made both sides edgy. **The Cuban Missile Crisis** of 1962 – when, by all accounts, the world came closer to nuclear war than at any other time – is not testimony to the effectiveness of deterrence: the crisis **occurred because of nuclear weapons**. **It is more likely** that **we have** been **spared nuclear war** not because of deterrence but **in spite of it**. Even when possessed by just one side, nuclear weapons have not deterred other forms of war. **The Chinese, Cuban, Iranian and Nicaraguan revolutions all took place even though a nuclear-armed US backed the overthrown governments**. Similarly, **the US lost the Vietnam War,** just as the Soviet Union lost in Afghanistan, **despite both countries** not only **possessing nuclear weapons**, but also more and better conventional arms than their adversaries. Nor did nuclear weapons aid Russia in its unsuccessful war against Chechen rebels in 1994-96, or in 1999-2000, when Russia’s conventional weapons devastated the suffering Chechen Republic. [Nuclear weapons](https://www.theguardian.com/world/nuclear-weapons) did not help the US achieve its goals in Iraq or Afghanistan, which have become expensive catastrophic failures for the country with the world’s most advanced nuclear weapons. Moreover, **despite its nuclear arsenal, the US remains fearful of domestic terrorist attacks**, which are more likely to be made with nuclear weapons than be deterred by them. In short, it is not legitimate to argue that nuclear weapons have deterred any sort of war, or that they will do so in the future. **During the Cold War, each side engaged in conventional warfare**: the Soviets, for example, in Hungary (1956), Czechoslovakia (1968), and Afghanistan (1979-89); the Russians in Chechnya (1994-96; 1999-2009), Georgia (2008), Ukraine (2014-present), as well as Syria (2015-present); and the US in Korea (1950-53), Vietnam (1955-75), Lebanon (1982), Grenada (1983), Panama (1989-90), the Persian Gulf (1990-91), the former Yugoslavia (1991-99), Afghanistan (2001-present), and Iraq (2003-present), to mention just a few cases. Nor have their weapons deterred attacks upon nuclear armed states by non-nuclear opponents. In 1950, China stood 14 years from developing and deploying its own nuclear weapons, whereas the US had a well-developed atomic arsenal. Nonetheless, as the Korean War’s tide was shifting dramatically against the North, **that US nuclear arsenal did not inhibit China from sending more than 300,000 soldiers across the Yalu River**, resulting in the stalemate on the Korean peninsula that divides it to this day, and has resulted in one of the world’s most dangerous unresolved stand-offs. In 1956, the nuclear-armed United Kingdom warned non-nuclear Egypt to refrain from nationalising the Suez Canal. To no avail: the UK, France and Israel ended up invading Sinai with conventional forces. In 1982, Argentina attacked the British-held Falkland Islands, even though the UK had nuclear weapons and Argentina did not. Following the US-led invasion in 1991, conventionally armed Iraq was not deterred from lobbing Scud missiles at nuclear-armed Israel, which did not retaliate, although it could have used its nuclear weapons to vaporise Baghdad. It is hard to imagine how doing so would have benefitted anyone. Obviously, **US nuclear weapons did not deter the terrorist attacks** on the US of 11 September 2001, just as the nuclear arsenals of the UK and France have not prevented repeated terrorist attacks on those countries. Deterrence, in short, does not deter. The pattern is deep and geographically widespread. Nuclear-armed France couldn’t prevail over the non-nuclear Algerian National Liberation Front. The US nuclear arsenal didn’t inhibit [North Korea](https://www.theguardian.com/world/north-korea) from seizing a US intelligence-gathering vessel, the USS Pueblo, in 1968. Even today, this boat remains in North Korean hands. US nukes didn’t enable China to get Vietnam to end its invasion of Cambodia in 1979. Nor did US nuclear weapons stop Iranian Revolutionary Guards from capturing US diplomats and holding them hostage (1979-81), just as fear of US nuclear weapons didn’t empower the US and its allies to force Iraq to retreat from Kuwait without a fight in 1990. In Nuclear Weapons and Coercive Diplomacy (2017), the **political scientists** Todd Sechser and Matthew Fuhrmann examined 348 territorial disputes occurring between 1919 and 1995. They **used statistical analysis to see whether nuclear-armed states** **were more successful than conventional countries in coercing their adversaries** during territorial disputes**. They weren’t**. Not only that, but nuclear weapons didn’t embolden those who own them to escalate demands; if anything, such countries were somewhat less successful in getting their way. In some cases, the analysis is almost comical. Thus, among the very few cases in which threats from a nuclear-armed country were coded as having compelled an opponent was the US insistence, in 1961, that the Dominican Republic hold democratic elections following the assassination of the dictator Rafael Trujillo, as well as the US demand, in 1994, following a Haitian military coup, that the Haitian colonels restore Jean-Bertrand Aristide to power. In 1974-75, nuclear China forced non-nuclear Portugal to surrender its claim to Macau. These examples were included because the authors honestly sought to consider all cases in which a nuclear-armed country got its way vis-à-vis a non-nuclear one. But no serious observer would attribute the capitulation of Portugal or the Dominican Republic to the nuclear weapons of China or the US. All of this also suggests that the acquisition of nuclear weapons by Iran or North Korea is unlikely to enable these countries to coerce others, whether their ‘targets’ are armed with nuclear or conventional weapons. It is one thing to conclude that nuclear deterrence hasn’t necessarily deterred, and hasn’t provided coercive power – but its extraordinary risks are even more discrediting. First, **deterrence via nuclear weapons lacks credibility**. A police officer armed with a backpack nuclear weapon would be unlikely to deter a robber: ‘Stop in the name of the law, or I’ll blow us all up!’ Similarly, during the Cold War, NATO generals lamented that towns in West Germany were less than two kilotons apart – which meant that defending Europe with nuclear weapons would destroy it, and so the claim that the Red Army would be deterred by nuclear means was literally incredible. The result was the elaboration of smaller, more accurate tactical weapons that would be more usable and, thus, whose employment in a crisis would be more credible. But deployed weapons that are more usable, and thus more credible as deterrents, are more liable to be used. Second, **deterrence requires that each side’s arsenal remains invulnerable to attack**, or at least that such an attack would be prevented insofar as a potential victim retained a ‘second-strike’ retaliatory capability, sufficient to prevent such an attack in the first place. **Over time**, however, **nuclear missiles have become increasingly accurate**, raising concerns about the vulnerability of these weapons to a ‘counterforce’ strike. In brief, **nuclear states are increasingly able to target their adversary’s nuclear weapons** for destruction. In the perverse argot of deterrence theory, this is **called counterforce vulnerability**, with ‘vulnerability’ referring to the target’s nuclear weapons, not its population. The clearest outcome of increasingly accurate nuclear weapons and the ‘counterforce vulnerability’ component of deterrence theory is to increase the likelihood of a first strike, while also increasing the danger that a potential victim, fearing such an event, might be tempted to pre-empt with its own first strike. The resulting situation – in which each side perceives a possible advantage in striking first – is dangerously unstable. Third, **deterrence theory assumes optimal rationality on the part of decision-makers**. It presumes that those with their fingers on the nuclear triggers are rational actors who will also remain calm and cognitively unimpaired under extremely stressful conditions. **It** also **presumes that leaders will** always retain control over their forces and that, moreover, they will always retain control over their emotions as well, **making decisions based** **solely on a cool calculation of strategic costs and benefits**. Deterrence theory maintains, in short, that each side will scare the pants off the other with the prospect of the most hideous, unimaginable consequences, and will then conduct itself with the utmost deliberate and precise rationality. **Virtually everything known about human psychology suggests that this is absurd.** In Black Lamb and Grey Falcon: A Journey Through Yugoslavia (1941), Rebecca West noted that: ‘Only part of us is sane: only part of us loves pleasure and the longer day of happiness, wants to live to our 90s and die in peace …’ It requires no arcane wisdom to know that people often act out of misperceptions, anger, despair, insanity, stubbornness, revenge, pride and/or dogmatic conviction. Moreover, in certain situations – as **when either side is convinced that war is inevitable,** or when the pressures to avoid losing face are especially intense – **an irrational act**, including a lethal one, **can appear appropriate, even unavoidable**. When he ordered the attack on Pearl Harbor, the Japanese defence minister observed that: ‘Sometimes it is necessary to close one’s eyes and jump off the platform of the Kiyomizu Temple [a renowned suicide spot].’ During the First World War, Kaiser Wilhelm II of Germany wrote in the margin of a government document that: ‘Even if we are destroyed, England at least will lose India.’ While in his bunker, during the final days of the Second World War, **Adolf Hitler ordered** what he hoped would be **the total destruction of Germany, because he felt that Germans had ‘failed’ him.** Consider, as well, a US president who shows signs of mental illness, and whose statements and tweets are frighteningly consistent with dementia or genuine psychosis. National leaders – nuclear-armed or not – aren’t immune to mental illness. Yet, deterrence theory presumes otherwise. Finally, **there is** just **no way for civilian or military leaders to know when their country has accumulated enough nuclear firepower to satisfy the requirement of having an ‘effective deterrent’**. For example, if one side is willing to be annihilated in a counterattack, it simply cannot be deterred, no matter the threatened retaliation. Alternatively, if one side is convinced of the other’s implacable hostility, or of its presumed indifference to loss of life, no amount of weaponry can suffice.

#### [2] Conventional deterrence solves. Ashraf 18.

[Ashraf, Maimuna. Maimuna Ashraf is currently working as a Research Officer at the Center for International Strategic Studies (CISS) Islamabad, Pakistan. She focuses on South Asian nuclear issues, primarily India and Pakistan’s nuclear missile capabilities, conventional and nuclear military doctrines, postures and multilateral export control regimes. Ms. Ashraf is a former South Asian Voices (SAV) Visiting Fellow, Stimson Center. Previously, she was associated with an Islamabad based think-tank, Strategic Vision Institute (SVI), as Senior Research Associate. She also worked at Fatima Jinnah Women University (FJWU) and Inter-Services Public Relations (ISPR). Ms. Ashraf holds an M.Phil. in International Relations from Quaid-I-Azam University, Islamabad, Pakistan. Her M.Phil. dissertation related to Nuclear Disaster Management. She has been a coordinator and contributor in national conferences/seminars. Her opinions regularly appear in national and international dailies on issues of her interest. “Pakistan’s Consolidating Conventional Deterrence: An Assessment.” South Asian Voices. Published 7 December 2019] SHS ZS

Before the overt nuclearization of South Asia in 1998, three major wars between India and Pakistan highlighted the latter’s struggle to bridge the conventional imbalance. During this time, Pakistan’s latent nuclear capability provided an effective deterrent, which served to offset the conventional and nuclear threats from India. However, twenty years since India’s entrance into the nuclear club, followed by Pakistan, **conventional deterrence remains integral to the** maintenance of **strategic stability in South Asia**. In view of these developments, this article aims to analyze Pakistan’s strategic direction since the nuclear tests, particularly in terms of its conventional military capabilities. How significant are conventional capabilities in the presence of nuclear weapons? For different kinds of wars (i.e. limited, conventional, or nuclear), a credible deterrent posture constitutes [both](https://ssi.armywarcollege.edu/pubs/parameters/articles/09autumn/gerson.pdf#pg32) nuclear and advanced conventional weapons. It is believed that **modern conventional weapon systems** could **substitute for actions earlier exclusively limited to nuclear weapons**, **and** even **produce the** [**same effect**](https://www.hudson.org/research/9068-conventional-replacement-of-nuclear-weapons-) **as nuclear weapons** as far as counterforce is concerned. This implies that in the future, wars with or without the limited use of nuclear weapons can occur. As observed in the [words](https://www.tandfonline.com/doi/abs/10.1080/01495939308402943#pg444) of Marshal Nikolai Ogarkov, the Soviet Chief of the General Staff, the employment of such **advanced conventional weapons would** **constitute a “qualitative leap in the development of conventional means of destruction**, which would make it possible to use conventional systems in qualitatively new incomparable, more destructive forms than before.” India’s Military Strategy In the case of South Asia, India’s quest to explore the space for limited conventional war below Pakistan’s nuclear thresholds has shifted the strategic debate in the region to the merits of limited aim strategies, i.e. [Cold Start](https://www.economist.com/the-economist-explains/2017/01/31/what-is-indias-cold-start-military-doctrine), that might be pursued despite Pakistan’s nuclear capabilities. In response to potential Indian proactive war strategies, **Pakistan has introduced** the low-yield, **short-range ballistic missile system** (SRBMs), [(HATF-IX)/Nasr](https://southasianvoices.org/pakistan-nasr-flawed-narratives-misperceptions/), with the intention of using it as a last resort against Indian forces in the case of impending failure of conventional defenses. In this way, Pakistan has adopted **a cost-effective solution to Indian proactive war strategies** **that** complements its [conventional forces](https://carnegieendowment.org/files/03-230315carnegieKIDWAI.pdf#page=7), **neutralizes India’s** growing **technological edge**, and bridges the conventional disparity between the two rivals. In response to Pakistan’s introduction of Nasr, India has begun to shift away from the traditional logic of conventional deterrence towards the [use](https://sputniknews.com/asia/201709271057743374-india-infantry-division-pakistan/) of conventional weapons and dual-capable missiles to bolster its [deterrence by punishment](https://www.orfonline.org/wp-content/uploads/2018/05/ORF_Issue_Brief_240_Pakistan_Sea-based.pdf) strategy. With the aim of destroying Pakistan’s strategic and high-value assets (such as exposed Nasr batteries**), India is pursuing new conventional weapon technologies to form the basis of its** [**counterforce capabilities**](https://southasianvoices.org/review-the-new-era-of-counterforce-in-south-asia/), including [**precision guided munitions**](https://www.janes.com/article/82475/india-s-drdo-tests-indigenous-precision-guided-munition-airborne-atgm)**,** [**missile defenses**](https://nationalinterest.org/blog/buzz/indias-missile-defenses-can-now-take-decoys-thats-really-big-deal-28627)**,** [**stand-off weapons**](http://www.newindianexpress.com/nation/2017/nov/22/successful-test-of-air-to-surface-cruise-missile-brahmos-gives-iaf-stand-off-capability-1708244.html)**, and** [**cyber operations**](https://economictimes.indiatimes.com/news/defence/india-is-quietly-preparing-a-cyber-warfare-unit-to-fight-a-new-kind-of-enemy/articleshow/61141277.cms). Pakistan’s Conventional Developments Although Pakistan’s [full-spectrum deterrence](https://www.dawn.com/news/1343581) doctrine has succeeded in deterring an Indian full-scale military attack in the past, the persistent conventional imbalance and India’s revisions to its conventional doctrines have pushed Pakistan to modernize and upgrade its conventional capabilities. Besides Nasr, **Pakistan is improving its** existing **conventional platforms to deter** ([by denial](https://www.defenceiq.com/air-land-and-sea-defence-services/news/pakistan-strengthens-low-to-medium-altitude-air)) **Indian proactive conventional war strategies** and any potential [conventional counterforce](https://www.armscontrol.org/taxonomy/term/13?page=24) aims. To this end, it is updating its conventional strategies, conducting military exercises, improving its weapons systems, and seeking new defense partnerships. For instance, Pakistan developed an offensive-defense “[Riposte](https://www.belfercenter.org/sites/default/files/legacy/files/Pakistan-Military-final-B.pdf#pg10)” strategy after 1989. The strategy calls for a Pakistani Army strike corps to launch an offensive in an event of war, with the aim of occupying Indian-territory near border while holding back the initial hostile advances. To supplement this doctrine, Pakistan has [reorganized](https://books.google.com.pk/books?id=WvapCQAAQBAJ&pg=PT108&lpg=PT108&dq=Pakistan+Army+Reserve+North+and+Army+Reserve+South&source=bl&ots=vuKm2O92lE&sig=h6p_6W1RZcG4CtsLqyaFrM3CqgQ&hl=en&sa=X&ved=2ahUKEwiFiOqJy_veAhXMXhUIHYKICwA4ChDoATAFegQICRAB#v=onepage&q=Pakistan%20Army%20Reserve%20North%20and%20Army%20Reserve%20South&f=false) its strategic reserves, i.e. the Army Reserve North and Army Reserve South. In addition, **Pakistan’s six** [**defensive Corps**](https://www.globalsecurity.org/military/world/pakistan/army-orbat.htm) **are situated in close proximity to Indian territory**; these are the country’s initial defenses against Indian conventional aggression. In addition, **conventional military exercises**—such as [Azm-e-Nau](https://jamestown.org/program/pakistans-ongoing-azm-e-nau-3-military-exercises-define-strategic-priorities/), [New Concept of War Fighting (NCWF)](https://tribune.com.pk/story/558604/countering-cold-start-military-to-adopt-new-war-concept/), [High Mark](https://www.thenews.com.pk/latest/151823-Pakistan-Air-Force-shows-muscle-in-High-Mark-drills), [Strike of Thunder](https://www.ibtimes.co.uk/pakistan-holds-strike-thunder-military-drill-near-india-border-chinese-attack-helicopters-1592045), and [Sea Spark](https://www.thenews.com.pk/print/381339-pakistan-navy-conducts-maritime-exercise-seaspark-18)—**are positioned to enhance the synergy of Pakistan’s** three **military** services and combat readiness along the eastern border. To further consolidate conventional deterrence against India, Pakistan is actively engaged in negotiations and contracts for upgrades and procurement of conventional armaments from various suppliers. **Initiatives in the conventional domain** such as additions to and/or modernization of its [cruise missile program](https://www.vifindia.org/article/2017/february/23/pakistans-focus-on-babur-and-raad-cruise-missiles), [air defenses](https://www.defenceiq.com/air-land-and-sea-defence-services/news/pakistan-strengthens-low-to-medium-altitude-air), [unmanned aerial vehicles](https://www.scmp.com/news/china/military/article/2167857/china-pakistan-sign-deal-build-48-strike-capable-wing-loong-ii), and [surface](https://quwa.org/2018/07/07/pakistan-inks-contract-for-4-milgem-ada-corvettes-from-turkey/) and [sub-surface fleet](https://www.thenews.com.pk/print/342558-china-building-eight-submarines-for-pakistan) (see below table) will **help Pakistan implement a** limited or **large-scale conventional** **military operation against India** if the need arises by denying the Indian Air Force the ability to achieve air superiority over Pakistan. Furthermore, improvements in air defenses will enable Pakistani ground forces to conduct defensive and counter-offensive operations against Indian integrated battle groups (IBGs) or strike corps. The additions will also help reduce the [yawning gap](https://www.globalvillagespace.com/pakistan-vs-india-whose-navy-is-better/) between the Indian and Pakistani navies in surface and sub-surface warfare, enhancing the Pakistan Navy’s ability to protect the country’s coast line and Exclusive Economic Zone (EEZ), including its port installations in Karachi and Gwadar, and defend Pakistan’s vital sea lanes of communication (SLOCs) against a possible Indian blockade and interdiction during a conflict. These naval capabilities are critical to sustaining a war effort, even during a short conflict or limited war. **Another change is** afoot in **Pakistan’s expanding defense partnerships**. In the past, China has played a primary role in assisting Pakistan in a multi-dimensional strategic partnership that comprises [civilian nuclear energy](http://www.atimes.com/third-gen-chinese-nuclear-technology-arrives-karachi/), [conventional arms sales](https://tribune.com.pk/story/1828531/1-pakistan-biggest-importer-chinese-arms-report/), and [military exercises](https://economictimes.indiatimes.com/news/defence/china-pakistan-air-forces-launch-joint-exercise/articleshow/60427426.cms). However, more recently, **Pakistan has included Turkey, Italy, and Russia in its list of partners** for conventional weapons. **These** new defense **partnerships**, acquisitions, and upgrades will **help Pakistan to maintain a credible level of conventional preparedness** and contain India’s conventional weapons asymmetry. Consequences for Regional and Strategic Stability The abovementioned developments indicate that Pakistan is pursuing a dual-track military modernization program to establish a conventional deterrent capable of combating India’s denial strategies as well as its limited war aims. These capabilities will provide a response to conventional threats and growing asymmetry with India, which has been the [world’s top net importer of conventional weapons](https://economictimes.indiatimes.com/news/defence/india-worlds-largest-importer-of-major-arms-in-the-last-four-years/articleshow/57244332.cms) in the recent past. Moreover, they will provide a range of response options and increase the nuclear threshold, since Pakistan will not be forced to retaliate with nuclear weapons as an initial response to a limited conventional incursion. **A credible conventional deterrent will decrease the chances of a conventional confrontation** in the South Asian strategic landscape.

#### [3] India will have nuclear superiority which takes out deterrence – war will happen anyway because Pakistan won’t risk nuclear retaliation. James 19.

[James, Kevin. “Can India or Pakistan Break Deterrence?” Published 22 April 2019.] SHS ZS

However, each of these high-intensity actions (or anything similar) would cross one of Pakistan’s [red lines](https://www.thehindu.com/opinion/lead/what-has-changed-post-balakot/article26583820.ece) and so trigger a risk of a nuclear response. Due to the current state of the India–Pakistan nuclear balance, India is unwilling to run that risk. Consequently, it has no effective response to Pakistan’s aggression in Kashmir. To change the game that India is otherwise destined to lose, **India must** find a way to **limit Pakistan’s nuclear threat**. **The way** to limit this threat **is to achieve nuclear superiority (which may not require an explicit change to Indian nuclear strategy**). **India is** now **striving to** [**do just that**](https://www.tandfonline.com/doi/full/10.1080/10736700.2019.1565187)**.** **Nuclear superiority will**, somewhat paradoxically, **enable India to exploit its** massive **conventional military superiority over Pakistan**. **If India has nuclear superiority**, **Pakistan will be** far **less willing** [**to risk**](https://www.amazon.co.uk/Logic-American-Nuclear-Strategy-Superiority/dp/0190849185/ref%3Dsr_1_fkmrnull_1?crid=2A5WNDS0CJXT7&keywords=the+logic+of+american+nuclear+strategy&qid=1554561611&s=gateway&sprefix=the+logic+of+game,aps,130&sr=8-1-fkmrnull) **a nuclear exchange** with India. Pakistan will then redraw its red lines in a much more conservative way. **The more restricted red lines will** in turn **enable India to mount a** much **more vigorous conventional response to** any **Pakistani-supported** or -facilitated **attacks without triggering a Pakistani nuclear response**. **The potential for** (or the reality of) **a more vigorous** conventional **response will** in turn substantially **limit Pakistan’s incentives to support attacks on India**. India’s efforts to obtain nuclear superiority will induce a Pakistani response (if indeed they haven’t already done so). That means the arms race is likely to move up a gear. However, **Pakistan is at a considerable disadvantage** in this race **as it is far smaller and** much **poorer than India**. So, while **Pakistan** will probably be able to prevent India from acquiring a perfect first-strike capability, it **will not be able to stop India from acquiring nuclear superiority**. It is now obvious to the entire Indian political-military establishment that the theoretically much more powerful India has no effective response to Pakistan’s subconventional aggression in Kashmir. This is not a sustainable situation, and **India is now developing the nuclear and conventional capabilities required to put high-intensity response options on the table**. If Pakistan continues on its present course, the inevitable next crisis is unlikely to end with pointless artillery barrages and pinprick airstrikes.

### Agni 5 DA

Only Agni 5 deter Chinese border incursions, causes India China war

#### [0] PIC doesn’t solve the aff – they can still be used to incite nuke war with Pakistan which is all the aff offense.

#### [1] No link – China doesn’t want war with India. Wescott 19.

Wescott, Ben. “Why China doesn't want to get caught in the middle of a India-Pakistan conflict”. Published 2, 28 2019. Accessed 14 Feb 2020. SHS ZS

Hong Kong (CNN)**Beijing is on the verge of** being sucked into **an India-Pakistan crisis**, amid rising tensions in the Kashmir region that borders China. Diplomatic relations between longtime rivals India and Pakistan reached their lowest point in years this week, after Pakistan claimed its air force [shot down two Indian jets](https://www.cnn.com/2019/02/27/asia/pakistan-india-flight-disruption-intl/index.html) over the disputed border Kashmir region, capturing one pilot. That came a day after the Indian military said it had launched airstrikes against a terrorist camp in Pakistan, the first such incursion by Indian air forces since the India-Pakistan war of 1971. It isn't just that China shares a border with the contested region of Kashmir -- **Beijing** also **has important links with both Pakistan and India that it needs to balance**. China has close economic, diplomatic and military ties with Pakistan, making it one of the nation's closest allies in region. Meanwhile, **China's long-running trade war** with the US has **forced Beijing to look for alternative trading partners**. As result, **China has started to rebuild ties with** rival rising power **India** and Prime Minister Narendra Modi. Last year Modi made two visits to China. This week, China's Foreign Ministry called for both Pakistan and India to "maintain self-restraint and focus on regional peace and stability." In an urgent late night call on Wednesday, Pakistan Foreign Minister Shah Mehmood Qureshi asked Chinese Foreign Minister Wang Yi to play "a constructive role in easing the current tensions." During the call, **China's Foreign Minister** Wang Yi **stressed** that "the **sovereignty and territorial integrity of all countries should be respected**, and China does not want to see the acts that violate the norms of international relations." Steve Tsang, director of the China Institute at SOAS University of London, said there was no benefit to China on any front if tensions between India and Pakistan spiraled. "China cannot afford to be seen as failing Pakistan, but at the same time **I don't think the Chinese** really **want to pick a fight with the Indians** over this," he said. The **long-standing tensions** that existed in the region **were not a big problem for Beijing,** according to China expert Tsang, as they served to remind Islamabad of China's importance as an ally. But the escalation this week has put Beijing in an awkward position. "They have to do something to show that they are helping to keep things under control, while not appearing unreliable as Pakistan's ally," Tsang said. But Beijing doesn't want to overplay its support of Pakistan and push India into the arms of US President Donald Trump. Compounding China's problems is the fact India claims it was striking back against terrorists in Kashmir. The mass detention of Muslim majority Uyghurs in China's north western province of Xinjiang by the Chinese government is one of Beijing's most controversial international policies -- and justified by China's government on the grounds that it is an essential measure in combating terrorism. "**They don't want to be too hard on India**, because they're acting in response to terrorism," Tsang said. China experts said the country's best option was to join the US in working to defuse tensions between Pakistan and India. Han Hua, professor and South Asia studies expert at Peking University, said given China has greater influence in Pakistan, while the US holds more sway in India, it made sense for the two to cooperate. "**China's message is clear** to both sides: **exercise restraint**," she said. "**China's interest lies in the stability of South Asia**." China has been pulling off a delicate diplomatic balancing act in South Asia in the past year, after easing some regional tensions. In July 2017, for example, there was a [heated month-long territorial standoff](https://www.cnn.com/2017/07/19/asia/india-china-border-standoff/index.html) between Chinese and Indian troops in Doklam, near the borders of India, China and Bhutan. The two powers nearly came to blows over accusations the Chinese government was building a road inside the territory of close Indian ally Bhutan. Nearby, China also conducted live-fire drills with combat troops. But a warm, informal summit between Chinese President Xi Jinping and Indian Prime Minister Narendra Modi in April 2018 helped [put relations back on a positive track.](https://www.cnn.com/2018/04/27/asia/modi-xi-wuhan-meeting-intl/index.html) "**The common interests of China and India far outweigh their differences**," state-run newspaper China Daily said in an editorial at the time. The situation is much clearer for China across the border. Pakistan is a longtime friend and trading partner of Beijing, described by Chinese diplomats as enjoying an "all-weather friendship" with the country. Pakistan is also one of the largest buyers of Beijing's weapons. Between 2008 and 2017, Islamabad purchased more than $6 billion of Chinese arms, [according to think tank CSIS.](https://chinapower.csis.org/china-global-arms-trade/) It hasn't all been easy sailing, however. Questions have been raised about the [large debts Pakistan](https://www.cnn.com/2018/07/28/asia/imran-khan-leadership-pakistan-intl/index.html) has accrued as a result of Chinese government loans and infrastructure. But Pakistan Prime Minister Imran Khan has been determined to keep the special relationship with Beijing strong. "We need to use China as an inspiration to lift our people out of poverty," he said.

#### [2] Turn: Holding onto Agni causes Sino-Indian arms racing and hurts global nonprolif norms.

Jaspal PhD 18 [Dr. Zafar Nawaz Jaspal is an Islamabad-based analyst and professor at the School of Politics and International Relations,], "India’s Agni-5 has the potential to unleash an arms race," https://www.arabnews.pk/node/1422566 12-18-18 RE

The increase in the military capabilities of one state always amplifies the security dilemmas of others, particularly the neighboring states. For vulnerable and alarmed nations to react in the same manner is inevitable – a move which can unleash a destabilizing arms race. Hence, the development of an Indian missile is always monitored by Pakistan and China. It is pertinent to note that China does not express its reactions over India’s cruise and ballistic missiles’ development. Pakistan, however, does exactly the opposite. One reason could be because India’s short and long-range weapons undermine Pakistan’s security, while China maintains a large inventory of cruise and ballistic missiles. On December 12, India successfully test-fired the Agni-5 — an indigenously developed surface-to-surface ballistic missile — from the Dr. Abdul Kalam Island off the coast of Odisha. “Agni-5 is a three-stage missile and is 17 meters tall and 2 meters wide. It is capable of carrying 1.5 tons of nuclear warheads,” a statement released at the launch event had read at the time. India initiated the Agni project in the mid-1980s, with the first test conducted on April 19, 2012. From then onwards, Indian scientists have been working on the technicalities of the missile by improving its navigation and guidance, warhead, and engine. The Agni-5 provides a deterrent capability against China and has the most potent or survivable second-strike capability against Pakistan, provided India makes a naval version of the missile to deploy on its nuclear-powered submarines. Last week’s test was the Agni-5’s seventh trial which enhances confidence in the operational capabilities of the missile. “It was a user-associated trial. Strategic force command along with DRDO scientists conducted it,” the statement said, adding that “the missile seems ready to be inducted into India’s tri-service Strategic Forces Command, which manages India’s nuclear arsenal”. With a strike range of 5,000 km, the Agni-5 falls in the category of a nuclear-capable, intermediate-range ballistic missile. There is a probability that India could further increase its range by 500 km for it to join the exclusive club of intercontinental ballistic missiles (ICBM). At present, only the United States, Russia, China, France, and Britain possess ICBM capabilities. With the Agni-5, India is at the threshold of joining the club. The Agni-5’s frequent tests demonstrate India’s noticeable strategic strike capability which cannot be ignored by the world’s great powers that possess intercontinental missiles. India has been developing world-class military strike capabilities to project itself as a superpower in the global strategic setting. The Agni-5’s frequent tests demonstrate India’s noticeable strategic strike capability which cannot be ignored by the world’s great powers that possess intercontinental missiles. Its international recognition as a superpower will indeed strengthen New Delhi’s case in obtaining a permanent seat in the United Nations Security Council. India has also been developing its blue water navy and is determined to play a decisive role in South Asia and the Indian Ocean region. The Agni-5 enables New Delhi to launch strikes against Beijing and Shanghai, across the whole of Asia, 70 percent of Europe, and Eastern Africa. With that kind of a reach, India can strike targets located in several countries and would be able to deter interference from other superpowers, especially China and pertaining to South Asian and Indian Ocean matters. By being able to attack China, the missile sends out a strong message — that its coastal cities, including Beijing and Shanghai, are vulnerable to being targeted by a nuclear-capable ballistic missile. Therefore, the incessant testing of the Agni-5 cannot be ignored by China and may lead to Beijing increasing its missile arsenal capabilities. The qualitative and quantitative increase of China’s missiles validates the US’ concerns that the 1987 Intermediate-Range Nuclear Forces (INF) Treaty does not address the former’s missile buildup. Additionally, the timing of the Agni-5’s recent test is critical. US President Donald Trump was provoked over the similar strike range by Russia’s development of an intermediate-range, ground-launched, cruise missile. He threatened to revoke the INF Treaty in October and recently gave Moscow a 60-day deadline to comply before it gets rid of the INF Treaty. The deployment of the Agni-5 has the potential to unleash a missiles arms race between India and China, even though the latter already has long-range missiles in its possession. However, it will not change the present state of strategic relations between Pakistan and India. Pakistan’s ballistic and cruise missiles can reach any part of India. The Shaheen-III, with a range of 2,750 km, arms Islamabad with the ability to attack major Indian cities.

#### [3] Turn: Indian nukes cause global instability and hair-trigger alert

Khalil 18 [Tanzeela is an independent researcher] "Agni-V: A Weapon of Instability," Pakistanpolitico, http://pakistanpolitico.com/agni-v-a-weapon-of-instability/ 10-18-2018 RE

The latest test of Agni-V was conducted by India’s Strategic Force Command (SFC) using a canister based launch system on 4 June 2018 which is an indication that the missile is being readied for induction. Canisterizaiton further suggests mating of the warhead and the missile providing a desirable launch time in high state of readiness. Former Defence Research and Development Organization (DRDO) Chief, Avinash Chander’s, statement about his mandate to reduce Indian response time from hours to minutes is achievable now. This is a clear departure from India’s earlier known policy of keeping the warheads and missiles in a de-mated form. Some reports suggest that like Brahmos, India is also understating the actual range of Agni-V and that the actual range could well be around or over 8000 km. While the Chinese and the Pakistanis are equally alarmed by Agni-V, Indian ICBM raises concerns at the global level as well since it is capable of hitting targets as far as Australia and Europe. Canisterization, MIRVing, shift from liquid to solid fuel missile inventory, ready arsenal and less response time are indicative of modernization in nuclear arsenal augmenting assertive control. Indian inventory of nuclear delivery systems indicates that India has options for use both in counter-force and counter-value settings. While the long-range Agni missiles may be used for counter-value strikes, the short-range missiles like Prithvi, Prahaar, Dhanush and Brahmos can be used for counter-force strikes especially aided by India’s increasing I2SR (Intelligence and Information, Surveillance and Reconnaissance) capabilities. All of this represents offensive posturing which is reflective of a visible shift in India’s nuclear doctrine. The U.S. and the West are apparently comfortable with these destabilizing strategic developments in South Asia since it serves their purpose to groom India against the rise of China with whatever means available. However, Pakistan cannot take Indian nuclear doctrine on its face value and ignore these visible shifts. It therefore has some compelling choices to make to maintain strategic stability in the region.

#### [4] Nonunique – Agni 5 aren’t a deterrent – recent test failures prove

Satyanath 19 [Pranav R. is a Research Analyst at the Takshashila Institution, an independent, networked think tank and public policy school based in India] "Failed Agni III Test May Dent India’s Credible Deterrence," No Publication, https://thediplomat.com/2019/12/failed-agni-iii-test-may-dent-indias-credible-deterrence/ 12-7-2019 RE

India conducted the first night test of its Agni III surface-to-surface ballistic missile off the coast of the state of Odisha on Saturday, December 1. The test used a missile selected randomly from the production set. The test, however, ended in an alleged failure, as one report suggested that the missile tumbled into the sea during stage separation. The intermediate-range ballistic missile (IRBM), pressed into service in 2011, services as a critical component of India’s nuclear deterrent. If the report, which quotes a highly placed source, is indeed true, then this is not only an acute concern for India’s Strategic Forces Command, but also sends mixed signals about India’s credible deterrent. Development of the Agni III, a two-stage solid propellant missile, began as early as 2001 with the goal to build a highly mobile and survivable missile. Inducted into the Strategic Forces Command (SFC), the missile — designed and developed by the Defense Research and Development Organization (DRDO) — is said to have a range between 3,000 and 5,000 kilometers, with the ability to carry warheads of up to two tons and possibly reach targets in China. India’s official nuclear doctrine states that the country maintains a posture of credible minimum deterrence and no-first use (NFU), and will retaliate massively in response to a nuclear first strike. The important word to focus on here is credibility, a guaranteed assurance that India will respond to a nuclear attack. Such credibility is highly dependent on a country’s capabilities and force posture to assure an adversary of a retaliatory attack. For a country like India that maintains an NFU doctrine, its arsenal must remain functional and highly robust to signal a high degree of credibility to the adversary. The failed night test of the Agni III, particularly at this stage in its service, raises doubts about the reliability and robustness of India’s deterrent. The Agni III is not only the main missile in India’s arsenal to operate in the intermediate range, but the K-4 submarine launched ballistic missile (SLBM), a derivative of the Agni III, is deployed on the Arihant nuclear submarine. Hence, it is imperative that reliance of the missile is ensured. This failure might send a signal to Pakistan and China that India’s arsenal isn’t reliable, therefore emboldening them to push the envelope during a crisis as they might not fear Indian retaliation. Indeed, the adversary might even find it attractive to either use conventional weapons to escalate the crisis deliberately or strike first with nuclear weapons without fearing a massive Indian retaliation, as they might view India’s nuclear weapons to be less than fully potent or reliable.

### Modi Politics DA

Modi will lash out causing problems.

#### [1] Uniqueness overwhelms the link – Modi is incredibly popular without showing signs of slowing down – look to your own evidence – means the impact cannot be triggered.

#### [2] Turn: The aff improves India’s international relations. A) Having a more peaceful relationship with Pakistan spurs economic development between the two countries which reflects favorably upon Modi. B) Peace is a step towards the right direction – Modi will be supported by this historic peace agreement.

#### [3] Nonunique – Modi gets his unwavering support from the Hindu population because of his religious policies – they don’t care about nukes:

Chaudhary ’19 < https://www.washingtonpost.com/business/why-indias-modi-has-his-countrys-muslims-worried/2019/12/13/9b0e5f6a-1dbf-11ea-977a-15a6710ed6da\_story.html>

Back in 1947, India’s constitution writers envisaged a secular state where all citizens were equal before the law. But the rise of Hindu nationalism has been testing that ideal. Since Narendra Modi became prime minister in 2014, hard-liners in his Bharatiya Janata Party (BJP) have become increasingly emboldened to recast the country to give dominance to its Hindus, who form 80% of the population. Now a string of actions that followed Modi’s landslide re-election in 2019 is giving the country’s 170 million Muslims reason to worry whether their futures are at risk, and stirring wider unrest. As the Congress Party, which dominated the government for decades, became increasingly viewed as corrupt and ineffective, that created room for the emergence of the BJP and Modi. The BJP is inspired by the ideology of the country’s main Hindu nationalist organization, the Rashtriya Swayamsevak Sangh, or RSS, which promotes a more assertive, orthodox form of the religion that sees India foremost as a Hindu nation.

### India Econ/Disease DA

Eliminating nukes kills India economy b/c political support is key to economy and the aff kills political support, impact: healthcare extinction.

#### [1] Uniqueness overwhelms the link – the Indian economy has been doing extremely well in 2020. Dutta 2/4/20.

Dutta, Prabash. “Are Bad Days in Indian Economy Over?” India Today. Published 4, February 2020. SHS ZS

There is suddenly buzz around Indian economy, once again. A survey has shown that **monthly manufacturing activity** for January **has** suddenly **shot up to an eight-year high** in India. This is remarkable in the sense that it definitely conveys that their is strong demand surge at the factory gates. This means **consumption**, which had been lying laggard, **has spiked** in India. Continued **low consumption was being held responsible for** longish **economic slowdown** in India. Now, the Nikkei India Manufacturing Purchasing Managers' Index (PMI), prepared by IHS Markit, rose from 52.7 in December 2019 to 55.3 in January 2020. PMI is a key to understand manufacturing activity. A PMI in excess of 50 indicates expansion in manufacturing activity. The surprise improvement has been attributed to spike in demand. The main pull force is consumer goods segment. But the real good news could be in **expansion in capital goods** segment **indicating** that investments in **Indian economy** might just have **revived**. This comes on the back of the Economic Survey and Union Budget presented last week. **Both projected a** rather **higher than expected GDP growth** **rate** for 2020-21 at **6-6.5 per cent.** Experts called the projection too optimistic and ambitious. India Ratings (Ind-Ra), the arm of ratings agency Fitch, actually downgraded corporate credit rating for Indian companies. This came after Union Finance Minister Nirmala Sitharaman presented her Union Budget 2020. The ratings agency predicted a growth rate of 5.6 per cent for 2020-21. Its projection for 2019-20 is 4.6 against government's 5 per cent. India Ratings assessment is in the line of the International Monetary Fund's (IMF) estimates of India's economic growth. The IMF sees India growing at 5.8 per cent in 2020-21 and predicts that a 6.5 per cent growth for India is possible only in 2021-22. Both the Fitch and the IMF seem to be worried over India breaching the fiscal deficit target. Sitharaman pegged the fiscal deficit for the current year at 3.8 per cent and estimated that it would be 3.5 per cent in 2020-21. Higher fiscal deficit target practically makes doing business in the country costlier and hence difficult. However, the surprise from the manufacturing sector may soothe the nerves of the government. P**MI for January stands at the highest since February 2012.** Simply put, **sales** **have gone up and there is upsurge in job market**. The survey found that hiring of new workers saw a sharp push -- the fastest rate in seven years. This is mainly on the account of growth of new businesses. There is more. Exports have seen a spurt. PMI indicators show that fresh export orders have risen at the fastest pace since November 2018. Exports drive has come from rising demands from consumers in Asia, Europe and North America. But good news does not end here. **Crude oil prices have fallen** and the BSE Sensex recovered from the budget-day shock and rebounded to end higher on Monday, and opened with fresh upward push on Tuesday. =

#### [2] No link – economy is linear, not a brink impact, so even if the aff marginally hurts the economy it won’t be enough to trigger your so-called public health crisis.

#### [3] Turn: The aff improves India’s international relations. A) Having a more peaceful relationship with Pakistan spurs economic development between the two countries which reflects favorably upon Modi. B) Peace is a step towards the right direction – Modi will be supported by this historic peace agreement.

#### [4] Missing internal link for why decreasement of Modi’s political support/popularity leads to a bad economy – that’s terminal defense against the disad.

### CBW DA

Countries will turn to chemical weapons.

#### [1] No link – India and Pakistan do not possess biological weapons and have signed a treaty that prevents their production. NTI 11.

“INDIA-PAKISTAN AGREEMENT ON CHEMICAL WEAPONS”. NTI 11. Accessed 14 February 2020. SHS ZS

Signed in 1992, **the Agreement provided for "the complete prohibition of chemical weapons**". It also included a commitment **for not developing, possessing or using chemical weapons**, as well as not assisting, encouraging or inducing, in any way, anyone to engage in the development, **production, acquisition, stockpiling** or use **of chemical weapons.** Furthermore, the agreement committed both governments to become regional signatories of the [Chemical Weapons Convention](https://www.nti.org/learn/treaties-and-regimes/convention-prohibition-development-production-stockpiling-and-use-chemical-weapons-and-their-destruction-cwc/). However, it did not commit India and Pakistan to ratify the CWC. **India signed the CWC** on 14 January 1993 and subsequently ratified it on 3 September 1996. **Pakistan signed the CWC** on 13 January 1993 and ratified the treaty on 28 October 1997. When India and Pakistan signed the Agreement, **both countries declared that they did not possess chemical weapons'** stockpiles.

**[2] Nukes are the primary cause of bioweapons.**

**Mezzour ’15** – Ph.D. in Electrical and Computer Engineering and Computation, Organizations and Society (now Societal Computing) from Carnegie Mellon University (Ghita Mezzour , Assessing the Global Cyber and Biological Threat, <http://casos.cs.cmu.edu/publications/protected/2015-2016/thesis_ghita_mezzour_final.pdf>, April 2015) SHS ZS

**Countries are motivated to develop BW** mainly **due to** in-kind deterrence [76, 149] and **deterrence of nuclear weapon** use [149]. Having a BW enemy may cause a country to seek BW in order to fill the perceived security imbalance [76, 149]. Similarly, **having a nuclear enemy may cause a country to seek BW** in order **to improve** its **deterrence** posture [149]. This is **particularly true when the country lacks** the financial and technical **infrastructure** necessary **to build nuclear weapons**. It is worth noting that countries that seek BW to deter nuclear enemies are aware of the fact that BW are not perfect substitutes for nuclear weapons [10, 64] and may continue pursuing nuclear weapons even after acquiring BW [64] It may be unclear at first that BW can play a deterrent role despite BW programs being secret. However, Tucker [149], the founding director of the Chemical and Biological Weapons program at the James Martin Center for Nonproliferation Studies of the Monetary Institute of International Studies, explains that **BW can play** such **a role because countries** may **hint about their weapons without formally admitting to having them**. For example, Israel is able to use nuclear weapons as a deterrent without formally acknowledging having such weapons. The primary disincentive against seeking BW is the absence of a perceived security deficit [64, 76, 149]. A country that has nuclear reassurance may not see a need for BW. Nuclear reassurance results from the country’s own nuclear weapons or from nuclear weapons of an ally that promises retaliation in case the country is attacked. Similarly, strong conventional weapons of the country or its allies may provide reassurance and reduce the need for BW. Other disincentives include the risk of provoking countermeasures, uncertain BW military utility, security problems associated with a BW capability, availability of BW defenses and moral constraints [149].

#### [3] Turn: Nuke war outweighs biochemical weapons. Page 07.

Page, Lewis. Lewis Page did eleven years in the Royal Navy, after brief flirtations with the army and air force. Highlights of his service included Commando training with the Royal Marines, qualification as a mine-clearance diver, and command of a UK-based bomb-disposal team from 2001-04. Apparently they were keeping a few of the best men back to defend Blighty, in case Saddam tried a sneaky counterattack. His book [*Lions, Donkeys and Dinosaurs: Waste and Blundering in the Armed Forces*](http://www.amazon.co.uk/Lions-Donkeys-Dinosaurs-Lewis-Page/dp/0099484420/ref%3Dsr_1_2/202-9705542-8989460?ie=UTF8&s=books&qid=1173178740&sr=1-2) is out now in paperback. He can occasionally be found on the web at [www.lewispage.co.uk](http://www.lewispage.co.uk) Chemical Weapons are Not WMDs. The register. Published 9 Apr 07. SHS ZS

Comment I remember the last time I handled a Weapon of Mass Destruction (WMD). It was in 2003, not long after the invasion of Iraq. I was serving as a bomb-disposal officer in the British armed forces. I was dressed in a full protective suit and gas mask, and a boffin from Porton Down stood next to me, likewise clad. The hot sun glared down on us, and the wind blew the sandy local soil around. There it lay at our feet; a battlefield chemical weapon as ever was, in this case an artillery shell filled with deadly phosgene gas. Neither of us had any doubt. The very thing that the British and US invasion forces, the Iraq Survey Group, Hans Blix and everyone else had been searching for, and here it was. I don't know about the chap from Porton Down, but it gave me a severe feeling of unreality. Because the sun, while hot, was not all that hot. The sandy soil was that of Britain, not Iraq. And this was the twentieth chemical weapon discovered at that one location in 2003 alone. Several others lay next to it, too. It was the third time I'd been there; that shell must have been at least my fortieth WMD. My unit had sent teams there scores of times, accounting for hundreds of weapons. Lest anyone think the UK was hit by an enemy chemical bombardment a few years back without it making the press, I should point out that these WMDs were British. The place where I was standing was a test range, long ago. Boffins working on UK chemical weapons programmes fired thousands of gas shells into the area, showing the gay disregard for safety cases, compensation culture, and the Geneva Protocols so characteristic of the era. Even more casually, once they were done they simply opened the range up to the public. To this day, it's a popular spot for a bracing walk among the unspoilt beauties of nature. My team and the Porton Down crowd had to chivvy curious spectators and dogs safely out of range before we could start work (I'm not aware of any civilian ever being harmed by the weapons at that site). I like to tell this story at dinner parties. But it isn't for the usual reason that ordnance-disposal men tell their tales (to impress girls, of course). Rather, I'm trying to convince people not to use the term "Weapon of Mass Destruction", which drives me bonkers. **I bring the matter up** not to make myself look courageous, as I normally would, but **to illustrate how utterly non-threatening chemical weapons** are. Deal**ing with those British WMDs was some of the least stressful work I ever did as an ordnance-disposal operator**. Far from possessing any special deadliness, **chemical warheads are less potent than ordinary conventional-explosive ones**. Calling them "WMDs", which suggests they are in some way equivalent to nuclear bombs, is simply ridiculous. My unit regarded such operations as a pleasant holiday. The dinner-party guests usually scoff politely. I point out that **any thoughtful soldier would** surely **rather be struck at by chemical warheads than high-explosive ones**. **He can carry and wear cheap**, portable **equipment which will make him almost completely safe from chemical attack**; nothing like that exists for normal bombardment. People then suggest that chemical weapons cover vast areas and persist for long periods. They imagine frightful clouds of silent death blanketing wide regions for months or years, in which nobody could survive but those suited and masked. Wild figures culled from the media are sometimes quoted. A single kilogram of nerve agent is said to be enough to kill 100 million people, for instance. That is actually true: but one would have to break the kilogram down into individual doses and administer them orally, without wasting so much as a tenth of a milligram. **It would be far simpler to shoot one's victims or blow them up**. **Even strangling them barehanded would be easier**. And this is generally the case with chemical weapons. Let's look at more practical scenarios. **In order to create a mile-wide cloud of nerve gas** which was actually dangerous to be in, **one would need to deliver at least half a ton of the stuff**; perhaps ten tons or more if conditions were less than perfect. **That assumes the use of many small projectiles** scattered about – artillery shells would be ideal – so as to spread the cloud; otherwise the area would be much smaller. But why not just use ordinary artillery? The shells will be falling anywhere from 150 to 30 metres apart. Ordinary explosive rounds at that density will take out a majority of unprotected people, rising to almost everyone at the high end. And in this case the protection required to survive isn't a cheap, portable suit and mask. One would want a bunker or a 30-ton armoured vehicle to withstand conventional artillery, and even then the risk of a direct hit would remain. **Conventional ammunition is infinitely easier to get, store, and transport, too**. There is the issue of persistence, but again the potency of chemicals is hugely exaggerated. **Ordinary gas clouds typically disperse within minutes**. There are longer-lasting agents such as VX, true. These will coat surfaces, remaining deadly to the touch until a few rains have fallen or someone hoses the place down with a solution of bleach. But persistent agents are extremely difficult to vapourise properly. They tend to form a spray of droplets which fall to earth almost at once, like rain. Improvised protective gear might well get you through a VX attack unharmed, Sean Connery and Nicolas Cage antics in The Rock notwithstanding. **Staying indoors would work even better**. Once the attack was over, in many cases y**ou'd be able to escape the area with no more than a pair of wellingtons**. I'm not saying that **a chemical attack** would be a completely trivial matter, but it **would almost always be preferable to being hit by the same weight of high explosives**. So, **if your aim is to kill and injure as many people as possible, you'd be a fool to use chemicals.** And yet chemicals are rated as WMDs, while ordinary explosives aren't. So too are biologicals, even more amazingly. Biological "weapons", in the modern sense, have yet to be even demonstrated. I used to find that strange, as I got into my massive, heavy bomb-disposal armour and walked down a road to check out an ordinary suspicious bag. If it held a few kilos of Semtex, I would be in severe personal danger despite the fact that I was wearing a crippling load of plates and kevlar. On the other hand**, I could walk merrily up to a gas shell in lightweight kit and feel almost completely safe** (I ought to mention that in my own case there never was any Semtex in the bag. Sandwiches, yes, or shopping; on a couple of mildly sweaty occasions a hoax device. It's remarkable how few genuine bombs there are, outside war zones. You get a special tie if you manage to reach a real one before it goes off). Back at the dinner table, I sometimes manage to convince people that **chemical weapons really aren't as dangerous as ordinary ones – let alone being in the same league as nukes**. Saddam Hussein is clearly a bad man, for instance, but his use of chemicals at Halabja and elsewhere doesn't make him significantly badder. Toppling him may or may not have been a good idea, but his possession – or lack of – battlefield chemical weapons shouldn't have affected anyone's thinking on the matter. At around this stage, the more right-on dinner guests sometimes nod sagely. Evidently the hidden oil-industry puppeteers, or the intelligence agencies, or some other right-wing conspirators are behind this cynical push to demonise mild-mannered Third-World dictators. But in fact it isn't only sabre-rattling politicians and spooks who stoke the chemical panic. Just about everyone uses the phrase "Weapons of Mass Destruction". Recent examples include the UN, the Lib Dems, Greenpeace, even noted Hollywood liberal George Clooney. All these people and organisations thereby tacitly accept that chemical weapons are equivalent to nukes. It's a foolish, inaccurate habit of thought. We really ought to get away from it, no matter what our politics. ®

#### [4] No internal link to use of extinction causing pathogens, nations have no strategic incentive do develop anything beyond localized bioweapons since they wouldn’t want their own citizens to be affected,

#### [5] Countermeasures solve bioweapons but not nuclear war – that also deters states from using them even if countermeasures fail

Koblentz 15 [Gregory D. Koblentz is an associate professor and deputy director of the Biodefense Graduate Program in the School of Policy, Government, and International Affairs at George Mason University. He is the author Living Weapons: Biological Warfare and International Security (Cornell University Press, 2009). The myth of biological weapons as the poor man’s atomic bomb. March 18, 2015. https://thebulletin.org/roundtable\_entry/the-myth-of-biological-weapons-as-the-poor-mans-atomic-bomb/]

The second major difference between nuclear and biological weapons concerns the availability of defenses. There are no effective defenses against the effects of a nuclear attack. There are, however, a number of countermeasures that can be taken before, during, and after a biological attack that can mitigate the consequences of such an attack. Masks and filters can prevent exposure to biological agents. Biological weapons are also unique in that vaccines can be used to protect soldiers and civilians before an actual attack occurs. Because diseases have an incubation period of days to weeks, defenders have a window of opportunity to detect an attack using sensors and biosurveillance systems. Early detection can trigger the distribution of medical countermeasures to treat the victims of an attack and there are already vaccines and /or treatments available for the most lethal diseases such as anthrax, plague, smallpox, and tularemia. As a result, the effects of a biological attack are not absolute and incontestable; they can be mitigated and limited by a well-prepared defender. This possibility is likely to reduce the confidence of states in their ability to reliably inflict unacceptable damage against an adversary in a retaliatory strike. The full panoply of defenses need not be deployed constantly at full readiness because the very availability of these defenses may be sufficient to dissuade a state from calculating that it can inflict unacceptable damage. Although civilian populations will remain more vulnerable to biological weapons than will military forces, damage limitation remains a viable option for larger, more advanced states facing less sophisticated adversaries.

### Hypersonics DA

Hypersonic will fill in and cause more damage

#### [1] Hypersonic aren’t a warhead – they are the missile itself which means double bind either a) India would have already implemented hypersonics and put nukes on top of them or b) hypersonic aren’t intrinsically powerful

#### [2] Nukes o/w on a) magnitude – they are powerful of detonating FAR larger blasts – hypersonic are just super-fast conventional weapons which means although they can be targeted, they can’t do mass damage b) reversibility – triggers nuclear winter

#### [3] India’s hypersonics are failing – that decks credibility and proves there’s no risk. Pandit 19.

[Pandit, Rajat. “India’s maiden hypersonic technical demonstrator vehicle flops.” Times of India. Published 12 June 2019] SHS ZS.

NEW DELHI: **The maiden launch of** **an** indigenously-developed **hypersonic technology** demonstrator vehicle (HSTDV), powered by a scramjet engine, from the Dr Abdul Kalam Island off the Odisha coast **failed** to achieve the technical parameters laid down for the test on Wednesday. Defence sources said the HSTDV, designed to cruise at Mach 6 speed with the scramjet engine, was supposed to “re and y on its own” after being carried to an altitude of around 30-40 km by the solid rocket motor of an Agni-I ballistic missile in the test. “But **the Agni-I booster went into an uncontrolled mode** after the launch **and could not achieve the desired altitude**...So, the entire test opped,” said a source. The cruise vehicle (HSTDV) was supposed to be ejected out of the launch vehicle (Agni-I) and be propelled by the scramjet engine after it auto-ignited at the required altitude but it failed to do so during the test. **The test was considered critical for the development of a hypersonic** (over Mach 5 speeds) cruise missile system in the future. The DRDO, however, said the “internal experimental test” of the technology demonstrator vehicle was meant to prove “a number of critical technologies” for futuristic missions. “The missile was successfully launched at 11.27 am. Various radars, telemetry stations and electro-optical tracking sensors tracked the vehicle through its course. The data has been collected and will be analyzed to validate the critical technologies,” it added. B**ut DRDO refused to say anything about the overall outcome of the test.** The HSTDV project is basically aimed at demonstrating autonomous ight of a scramjet integrated vehicle using kerosene, which can have multiple civilian applications, including launching satellites at a low- cost, as well as military uses in the shape of long-range cruise missiles. A scramjet engine is an improvement over the ramjet engine because the former operates efciently at hypersonic speeds and allows supersonic combustion. Ramjets, in contrast, operate well at supersonic speeds around Mach 3 but their efciency drops at hypersonic speeds.

#### [4] No hypersonics

Corentin Brustlein 15, head of the Deterrence and Proliferation research program at the French Institute of International Relations, January 2015, “Conventionalizing Deterrence? U.S. Prompt Strike Programs and Their Limits,” <https://www.ifri.org/sites/default/files/atoms/files/pp52brustlein.pdf>

**CPGS = conventional prompt global strike (hopefully that one’s obvious by now); HGV = hypersonic glide vehicle, CTM = conventional Trident modification**

Development of CPGS capabilities has run into a series of budgetary, political and technological barriers which have mutually reinforced each other. Taken together, they help understand why progress has until now been extremely limited. These factors combined have pushed back the perspective of deploying an operational capability to the end of the decade at least40. In the first place, most U.S. projects suffer from their reliance on technologies that are not yet mature, particularly when relying on HGVs (scramjet propulsion is another example). The requirements laid down by the Pentagon for the planned systems – strike any target on the earth with metric precision in less than one hour – are extremely ambitious. Because Congress had ruled out the only option based on relatively proven technologies (CTM program), any CPGS system development first required key advances in mastering hypersonic flight. In theory, only a hypersonic glide vehicle could combine global range, short flight time and sufficient precision, while reducing the nuclear ambiguity problem thanks to its maneuverability during the intermediate phase of flight. However, in concrete terms, achieving a mature design for a HGV with global range poses numerous difficulties, either revealed during HTV-2 testing or anticipated in the longer term:  the conditions for stable gliding flight at hypersonic speeds are still poorly understood;  test costs are prohibitive, and reproducing hypersonic flight conditions in an experimental environment is both difficult and expensive;  shielding the payload from the extreme heat generated by high-speed endoatmospheric flight constitutes a tremendous challenge;  current precision guidance systems seem inadequate for use with a HGV: the GPS signal could be disrupted by the plasma generated by atmospheric heating, while inertial measurement units would lack precision considering the extreme speed of both the vehicle and payload41.

#### On cyber shift:

#### [1] You cyber shift is a contradiction, double bind either a) hypersonics are so fast that AI can’t launch them in time either which means no incentive to develop hypersonics or b) hypersonics are slow enough that humans can launch which means no need for AI

#### [2] Nonunique – Just b/c we use AI to launch hypersonics doesn’t mean countries have unique incentives to develop other types of cyber weapons

### Asteroids DA

Prevent us from deterring asteroids.

#### [1] No impact – other countries that have nukes like the US will just shoot them off.

#### [2] NASA hasn’t even detected anything close to that threat level – err aff on recency. And, new tech means alt solvency – we’ll have time and info to predict with other weapons – solves the CP. Pettit 12/3.

Pettit 12/3 [Harry Pettit, () "Apocalyptic asteroid strike that could wipe out humanity is ‘only a matter of time’, top scientist warns" No Publication, xx-xx-xxxx, <https://www.foxnews.com/science/apocalyptic-asteroid-strike-that-could-wipe-out-humanity-is-only-a-matter-of-time-top-scientist-warns.amp>, DOA:12-5-2019 // WHSRS]

"We will get a serious asteroid impact sometime," said Professor Fitzsimmons, of Queen's University in Belfast. "It may not be in our lifetime, but mother nature controls when that will happen. "We will need to do something about it. We'll need to move that asteroid so it misses us and doesn't hit us." **Astronomers are currently tracking nearly 2,000 asteroids**, comets and other objects that threaten the Earth, and new ones are found every day. **Earth hasn't seen an asteroid of apocalyptic scale since the space rock that wiped out the dinosaurs 66 million years ago.** However, smaller objects still capable of flattening an entire city crash into Earth every so often. One a few hundred meters across that devastated 800 square miles of forest neat Tunguska in Siberia on June 30, 1908. Professor Fitzsimmons called on amateur astronomers to help space agencies like Nasa track potentially deadly asteroids. He said an upcoming mission was designed to help stop space rocks hitting Earth, but that it needed help deciding which ones to observe. **Launching in 2024, the probe will measure the movement of a smaller asteroid moon knocked out of its orbit by an earlier spacecraft. Astronomers can help the mission by identifying and reporting as many asteroids as possible in the Kuiper belt, a mysterious region beyond Neptune. Experts hope the mission, run by both Nasa and the European Space Agency, will pave the way for a full-blown asteroid deflection system**. Some scientists believe such a technique won't work, and would prefer firing a nuclear bomb at space rocks bearing down on our planet. For what it's worth, **NASA doesn't believe any of the thousands of "Near-Earth objects" it keeps an eye on are currently on a collision course with our planet.** However, that could change in the coming months or years as the space agency constantly revises objects' predicted trajectories. “**NASA knows of no asteroid or comet currently on a collision course with Earth, so the probability of a major collision is quite small**," NASA says. "In fact, as best as we can tell, **no large object is likely to strike the Earth any time in the next several hundred years**." **Even if they were to hit our planet, the vast majority of asteroids would not wipe out life as we know it**. "Global catastrophes" are only triggered when objects larger than 3,000 feet smash into Earth, according to NASA.

#### [3] Turn – it’s impossible to control the resulting nuclear blast. It could send the NEO into an orbit and return to the earth. Using a space craft to deflect it from its path is much more effective and controllable. Grahm 08

Graham and Schweickart 08 [Thomas Graham Jr. and Russel L. Schweickart: “NASA’s Flimsy Argument for Nuclear Weapons.” Scientific American. March 1, 2008.  <https://www.scientificamerican.com/article/nasas-flimsy-argument-for-nuclear-weapons/>] CT

This analysis is seriously flawed. **It is important not only to deflect an NEO from a collision course with Earth (primary deflection) but also to avoid knocking the object into a potential return orbit that would cause it to come back a few years later** (secondary deflection). **Nuclear explosions are not controllable in this way**. **But a nonnuclear kinetic impact—that is, simply smashing a spacecraft into an NEO—can provide the primary deflection for the vast majority of objects, and a precise secondary deflection, if necessary, could be performed by an accompanying gravity-tractor spacecraft, which would be needed in any event to observe the NEO deflection and its aftermat**h [see "Gravitational Tractor for Towing Asteroids,” by Edward T. Lu and Stanley G. Love, in Nature; November 10, 2005].

#### [4] The risk of nuclear weapons outweighs asteroids. Buam 15

Baum 2015 [Seth Baum, executive director of the Global Catastrophic Risk Institute. “Should nuclear devices be used to stop asteroids?” Bulletin of the Atomic Scientists. June 16, 2015.<https://thebulletin.org/2015/06/should-nuclear-devices-be-used-to-stop-asteroids/>] CT

Today the International Campaign to Abolish Nuclear Weapons is calling for a new treaty to ban them, and some people argue that the weapons are categorically immoral. **The idea of an anti-NEO nuclear stockpile is** fundamentally **incompatible with both the ban effort** and the moral stance—unless a distinction is made between nuclear weapons and peaceful nuclear devices. I don’t believe that nuclear devices, which include nuclear weapons, are categorically immoral. The problem is not the devices themselves but their potential consequences, which include massive humanitarian and environmental damage, though possibly also fewer wars (as in deterrence). Politically, it might be easier to simply ban all nuclear devices instead of attempting to retain some for peaceful purposes, such as NEO protection, or even beneficial military purposes, such as deterrence. In the decision over whether a small stockpile should be maintained for protection against asteroids and comets, the question is whether the reduced risk that one might crash into Earth is worth whatever harm the stockpile might cause to the political process of nuclear disarmament. **The risk posed by NEOs is** not zero, but it is **small relative to** the risk posed by **nuclear weapons.** A large NEO impact and a **nuclear war would have similar consequences:** massive initial explosions followed by severe global cooling. But NEO collisions large enough to threaten all of human civilization occur approximately once every 100,000 years. (Smaller NEO impacts are more common and less damaging.) **The probability of nuclear war is** harder to estimate but clearly **much larger**; based on current arsenals, it is reasonable to assume a rate of between once per 100 years and once per 1,000 years. So if retaining an anti-NEO nuclear stockpile would halt progress on nuclear disarmament, then we shouldn’t try to keep one. Nuclear war is too much larger of a threat.

### Citizen Military Relation (CMR) DA

Eliminating nukes crushes India military relations with civilians, which is necessary to solve for other threats.

#### [1] No link – Your ev. Indicates the CMR relations are unclear, not that removing nukes would kill it

#### [2] No impact – Your ev. Indicates the military has operated independently in the squo which means there’s no impact to disagreement

#### [3] No impact – your ev. Talks about how nukes are divided among different branches of the military, which is not civilians

### Circumvention/Rearmament DA

Countries will find a way around the ban.

#### [1] Durable fiat solves – We fiat that the countries themselves eliminate their nuclear arsenals, not that they follow a treaty binding them to eliminate their nukes which makes circumvention impossible

#### [2] Treat this as impact defense to the aff – Majority of nukes would still be eliminated and there’s no external DA to IndoPak losing their weapons

#### [3] Aff solves rearmament, states can verify that rearmament has not happened through the START III Treaty. Schaper and Frank ’99

(January 1, 1999, “A Nuclear Weapon Free World - Can it be verified?” Peace Research Institute Frankfurt,<https://www.hsfk.de/fileadmin/HSFK/hsfk_downloads/prif53.pdf>) EG

A series of steps in the nuclear disarmament process could be implemented already before the decision has to be made as to how far-reaching this process should be in end-effect: whether it should really be heading towards zero, or whether it should stop at reductions only. In the case of reductions, the requirements on verification are lower than in the case of total nuclear disarmament, since it is only necessary to ensure that a certain number of warheads has been destroyed. In the case of total nuclear disarmament, however, there is a shift in tasks. On one hand, it must be verified that to a high degree of probability no more hidden arsenals remain in existence – a rather different and more difficult task compared with the verification of disarmament of declared warheads. On the other hand, **in a nuclear** weapon **free world, no** special **warhead factories and** warhead material **storage sites will exist anymore, which would make** nuclear **rearmament** technically more **difficult and increase detection probability** of illegal activities. A first move towards applying verification of nuclear reductions that can now realistically be expected, could be implemented in a future START-III Treaty. In contrast to the verification of START-I and START-II, which is limited to the destruction of carrier systems and does not verify the disarmament of warheads, **transparency and verification measures for the destruction of** nuclear **warheads** themselves **would** probably ***be implemented*** in a START-III Treaty. This was already discussed at the Helsinki summit, and is to be part of future START-III negotiations.23 A series of additional disarmament measures also seems to be a realistic option for the near future; for example, other START treaties, **a treaty on the disarmament** of tactical nuclear weapons, measures for extending early-warning times or the verified disposition **of weapon-grade nuclear material**. 24 The transition to a nuclear weapon free world presupposes the successful implementation of these interim steps and their verification. This would lead to the gaining of realistic experience in the handling of technical and organisational verification procedures and would strengthen the confidence of the contracting parties in one another and in these procedures’ functional capability and reliability. This is an essential prerequisite for taking further steps. In addition to the verification implemented up to that point, the verification of the transition will then require further, more intrusive measures which are based on and developed from previous ones. This particularly includes verification of the absence of any remaining hidden or “forgotten“ nuclear weapons – the reliability of which would rest on the trust which had developed in the meantime. Following the completion of the disarmament process, the majority of the **verification procedures will** become obsolete. However, some will have to **be applied continually** in order **to** pursue the **search for** leftover **warheads** as a deterrent **on a random basis**. This is explained in more detail in the following sections. The technical process of nuclear disarmament encompasses many individual measures. Some of them are already being implemented as part of the INF Treaty and the START treaties, namely deactivation measures, separation of warheads from the carriers, destruction or conversion of the carrier systems and destruction of the silos.25 Some others are taking place without any prior contractual stipulations, for example, the destruction of warheads. Up to now, these have not been verified, but they could be integrated into future disarmament treaties. One of the last steps would be the non-military disposition or further use of the fissile material. Table 1 gives an overview of the most important nuclear disarmament measures, their present obligation and transparency. In the first column (measure), different stages of nuclear disarmament are listed. The second column (implementation) indicates if and to what extent these measures are currently being implemented. The third column (degree of obligation) indicates if, and in what form, an obligation to carry out this measure already exists. The stronger this obligation, the more difficult it is to reverse a measure. That is, the degree of irreversibility increases. Public pressure already generates a little friction during the attempt to withdraw a measure and therefore causes a certain element of irreversibility. In the case of valid international treaties however, the obligation is stronger. The last column indicates whether the measure is being verified, or whether at least a certain degree of transparency is being created. The table provides insight into the present state of nuclear disarmament and possible future measures. In the following sections of chapter 3, the methods for verification of these measures are discussed.

### Waste Disposal DA

Nuke waste gets developed when we eliminate the weapons.

#### [1] Empirically denied – some states like South Africa have already eliminated their nukes and no extinction

#### [2] Status quo methods solve – it’s easy to make radioactive material safe and unusable. Starr 17.

[Starr, Terrell. “How to Dismantle a Nuclear Weapon.” Jalopnik. Published 22 May 2016] SHS ZS

What To Do With The Uranium When compared to the process of getting rid of plutonium, **it is** relatively **easy to break down uranium for peaceful use**. **Uranium is used in civilian nuclear power plants**, but the kind that is used for nuclear weapons is highly enriched. You basically have to **mix it with a lower grade of uranium** (more specifically, reactor grade uranium, which is only [three to five percent U-235](http://www.world-nuclear.org/information-library/nuclear-fuel-cycle/conversion-enrichment-and-fabrication/uranium-enrichment.aspx), as opposed to the 90 percent in bombs) **to make it ready for civilian use**. Here’s a fun fact: Most Americans have no idea that nearly **half of the uranium burned at U.S. power plants** between 1994 and 2014 **came from decommissioned Russian weapons**, according to the [Bulletin of Atomic Scientists](http://thebulletin.org/more-megatons-megawatts). It started back in 1993 under the “Megatons to Megawatts” program, when the Russians [agreed](http://www.npr.org/2013/12/11/250007526/megatons-to-megawatts-russian-warheads-fuel-u-s-power-plants) to convert 500 tons of bomb-grade uranium into nuclear power and sell it to the Americans; in turn the Americans sold to to energy companies stateside. It was a good way for Washington to find common ground with its former adversaries after the fall of the USSR. Plus, it was profitable for them because the Russian economy was on the brink of collapse at several points during the 1990s. Moscow made $17 billion during the program’s 20-year span. But the Kremlin ended it in 2013, as it didn’t feel Russia could benefit from it any longer. Specifically, Pavel Podvig, a Russian physicist, [wrote](http://thebulletin.org/fallacy-megatons-megawatts-program) in 2008 that the program is not economically advantageous for Russia, nor does it adequately address its own non-proliferation needs.

### Nuclear Power/Renaissance DA

Nuclear weapons/tech needed for other things, eliminating nukes stops that.

#### [1] No link – only India and Pakistan eliminate their nuclear arsenals so the renaissance can be achieved by all other countries

#### [2] No link – We fiat getting rid of nuclear ARSENALS, not nuclear POWER – we do not ban the production of nuclear material so long as they aren’t used for arsenals.

#### [3] Turn: Eliminating nuclear arsenals means all the weapons scientists would move to nuclear power which would increase research opportunities and speed up development in that field

#### [4] Impact defense – no warrant why this marginal increase emissions without nuclear power would lead to extinction – force them to read evidence otherwise consider it extremely low probability.

#### [5] Turn: Nuclear power contributes to global warming – elimination is key. Wasserman 16.

[Wasserman, Harvey. “How Nuclear Power Causes Global Warming.” The Progressive. Published 21 September 2016] SHS ZS

Supporters of nuclear power like to argue that nukes are the key to combatting climate change. Here’s why they are dead wrong. **Every nuclear generating station spews** about [**two-thirds of the energy**](http://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/fact-sheet-water-use.pdf) **it burns inside its reactor core** into the environment. **Only one-third is converted into electricity**. Another tenth of that is lost in transmission. [According to](http://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/fact-sheet-water-use.pdf) the [Union of Concerned Scientists](http://www.ucsusa.org/): [**Nuclear fission**](http://www.ucsusa.org/clean_energy/our-energy-choices/energy-and-water-use/water-energy-electricity-nuclear.html#.V97eCzvTwpo) **is the most water intensive method of** the principal **thermoelectric generation** options in terms of the amount of water withdrawn from sources. In 2008, **nuclear power plants withdrew eight times as much freshwater as natural gas plants** per unit of energy produced, and up to 11 percent more than the average coal plant. Every day, **large reactors** like the two at Diablo Canyon, California, individually **dump** [**about 1.25 billion gallons of water into the ocean**](http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/diablo_canyon/docs/rc_dc_pres032811.pdf) **at temperatures up to** [**20 degrees**](http://www.nrc.gov/reactors/operating/licensing/renewal/applications/diablo-canyon/dcpp-er.pdf)Fahrenheit **warmer than the** [**natural environment**](http://www.nirs.org/reactorwatch/licensedtokill/executivesummary.htm). Diablo’s “once-through cooling system” takes water out of the ocean and dumps it back [superheated, irradiated and laden with toxic chemicals](http://www.ucsusa.org/clean_energy/our-energy-choices/energy-and-water-use/water-energy-electricity-nuclear.html#.V97QgjvTwpo). Many **U.S. reactors use cooling towers which emit huge quantities of steam** and water vapor **that also directly warm the atmosphere.** These emissions are often [chemically treated to prevent algae and other growth](http://www.chemtreat.com/solutions/cooling-tower-water-treatment/) that could clog the towers. Those **chemicals can then be carried downwind, along with radiation** from the reactors. In addition, [**hundreds of thousands of birds die annually by flying into the reactor domes and towers**](https://cleantechnica.com/2013/11/26/wind-farm-bird-deaths-fossil-fuel-nuclear-bird-deaths/). The [Union of Concerned Scientists](http://www.ucsusa.org/clean_energy/our-energy-choices/energy-and-water-use/water-energy-electricity-nuclear.html#.V97eCzvTwpo) [states](http://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/fact-sheet-water-use.pdf): **The temperature increase in the bodies of water can have serious adverse effects on aquatic life**. Warm water holds less oxygen than cold water, thus discharge from once-through cooling systems can create a “temperature squeeze” that elevates the metabolic rate for fish. Additionally, suction pipes that are used to intake water can draw plankton, eggs and larvae into the plant’s machinery, while larger organisms can be trapped against the protective screens of the pipes. Blocked intake screens have led to temporary shut downs and NRC fines at a number of plants. And that’s not all. [**All nuclear reactors emit Carbon 14**](http://www.agreenroadjournal.com/2014/05/carbon-14-emitted-by-nuclear-power.html)**, a radioactive isotope**, invalidating the industry’s claim that reactors are “carbon free.” And **the fuel that reactors burn is carbon-intensive**. The [mining, milling, and enrichment processes](http://www.resilience.org/stories/2006-05-11/does-nuclear-power-produce-no-co2) needed to produce the pellets that fill the fuel rods inside the reactor cores all involve major energy expenditures, nearly all of it based on coal, oil, or gas. And of course **there’s the problem of nuclear waste**. After more than a half-century of well-funded attempts, **we’ve seen no solution for the management of atomic power’s intensely radioactive waste.** There’s the [“low-level” waste](http://www.nirs.org/factsheets/llwfct.htm) involving enormous quantities of troublesome irradiated liquids and solid trash that must be dealt with outside the standard civilian waste stream. And **that handling involves fossil fuels burned in the process of transportation, management, and disposal** as well As for the [high-level waste](https://www.iaea.org/About/Policy/GC/GC50/GC50InfDocuments/English/gc50inf-3-att5_en.pdf), this remains one of humankind’s most persistent and dangerous problems. Atomic apologists have claimed that the intensely radioactive spent fuel rods can somehow be usable for [additional power generation](http://e360.yale.edu/feature/are_fast-breeder_reactors_a_nuclear_power_panacea/2557/). But after a half-century of efforts, with billions of dollars spent, all attempts to do that have utterly failed. **There are zero successful reactors capable of** [**producing more reactor fuel than they use,**](https://www.princeton.edu/sgs/publications/articles/Time-to-give-up-BAS-May_June-2010.pdf) or able to derive more energy from the tens of thousands of tons of spent fuel rods they create. Some reactors, like Fukushima, use “mixed-oxide” fuels that have proven to be extremely dirty and expensive. It’s possible some of this “MOX” fuel containing [plutonium, actually fissioned at Fukushima Unit Three](http://www.agreenroadjournal.com/2016/04/what-really-happened-at-3-fukushima.html), raising terrifying questions about the dangers of its use. The [mushroom cloud that appears on video as Fukushima Unit Three exploded](http://enenews.com/reactor-designer-it-was-a-nuclear-explosion-at-fukushima-unit-3-plutonium-was-scattered-after-blast-abc-theres-willful-denial-and-lying-going-on-here-even-at-the-highest-levels) stands as an epic warning against further use of these impossible-to-manage fuels. The [MOX facility](http://www.srswatch.org/) under [construction near Aiken, South Carolina](http://www.moxproject.com/about/), is now projected to require another ten years to build with another ten possible after that to phase into production. U.S. Secretary of Energy Ernest Moniz said on September 13, 2016, at the Carnegie Endowment for International [Peace](http://carnegieendowment.org/2016/09/12/u.s.-secretary-of-energy-ernest-moniz-on-future-nuclear-challenges-event-5356) that the mismanaged project was "impossible" to carry out and that it could cost $30 billion to $50 billion. Even the current pro-nuclear Congress won’t fully fund the project and the Department of Energy DOE continues to recommend abandoning it. There are no credible estimates of the global warming damage done by the intensely hot [explosions at the four Fukushima reactors, or at Chernobyl](https://www.theguardian.com/world/2011/apr/12/japan-fukushima-chernobyl-crisis-comparison), or at any other past and future reactor meltdowns or blowups. Atomic apologists argue that the disposal of high-level reactor wastes should be a relatively simple problem, lacking only the political will to proceed. The industry touts New Mexico’s [Waste Isolation Pilot Project](http://www.wipp.energy.gov/wipprecovery/recovery.html), or WIPP, which has long been the poster child for military attempts to deal with high-level trash from the nuclear weapons program. Accepting its first shipment of waste in 1999, WIPP was touted as the ultimate high-tech, spare-no-expense model that proved radioactive waste disposal “can be done.” But a series of disastrous events in February, 2014, led WIPP to stop accepting wastes—the sole function for which it was designed. Most significant was the [explosion of a single barrel of highly radioactive waste materials](http://www.wipp.energy.gov/wipprecovery/accident_desc.html) (it was mistakenly packed with organic rather than clay-based kitty litter). About a dozen WIPP workers were exposed to potentially harmful radiation. The entire facility remains closed. In a phone interview, facility management told me it may again accept some wastes before the end of this year. But at least part of the cavernous underground labyrinth may never be reopened. The Los Angeles Times [estimated](http://www.latimes.com/nation/la-na-new-mexico-nuclear-dump-20160819-snap-story.html) the cost of this single accident at $2 billion. Overall**, the idea that atomic power is “clean” or “carbon free” or “emission free” is a very expensive misconception**, especially whe**n compared to renewable energy, efficiency, and conservation.** Among conservation, efficiency, solar and wind power technologies, there are no global warming analogs to the heat, carbon, and radioactive waste impacts of nuclear power. No green technology kills anywhere near the number of [marine organisms that die through reactor cooling systems](https://www.nirs.org/reactorwatch/licensedtokill/summary.pdf). Rooftop solar panels do not lose ten percent of the power they generate to transmission, as happens with virtually all centralized power generators. S. David Freeman, former head of numerous large utilities and author of All Electric America: A Climate Solution and the Hopeful Future, says: “Renewables are cheaper and safer. That argument is winning. Let’s stick to it.” No terrorist will ever threaten one of our cities by blowing up a solar panel. But the nuclear industry that falsely [claims its dying technology doesn’t cause global warming](http://www.globalresearch.ca/nuclear-energy-causes-global-warming/20231) does threaten the future of our planet.

### Terror DA

Eliminating nukes makes it easy for terrorists to get access.

#### Framing issue: We have to win its more likely terrorists can steal fully assembled nukes than radioactive material which would turn the disad.

#### [1] Durable fiat solves – We get rid of nukes immediately which means there’s no transport risk

#### [2] Turn: Aff outweighs on probability – more likely terrorist steal fully assembled nuclear weapons which is easier to use because they don’t need the knowledge to build it with raw plutonium

#### [3] Nonunique – Raw material exists hasn’t been stolen in the squo – terminal defense against the disad

#### [4] Turn, burying the plutonium is safer and cheaper way to dispose plutonium, bypassing terrorists from stealing it. Niemeyer 12

[Niemeyer, Kyle, and Utc. “Got Plutonium? Bury It.” Ars Technica, 10 May 2012, arstechnica.com/science/2012/05/got-plutonium-bury-it/.]

Creating MOX fuel pellets, on the other hand, requires precise machining of fuel pellets to fit in long zirconium tubes. Add these costs to the already expensive reprocessing stage, and you have plutonium-based fuel that costs around five times that of new uranium fuel. We’ve established that recycling plutonium is more expensive than it’s worth. What else can we do with it? According to the authors of the commentary**, the safest and most cost-effective route is to** simply stop reprocessing and **dispose of** our existing **stockpiles of plutonium**. First, **the plutonium would be “immobilized” by encasing it in ceramic**. **Then, in order to prevent** would-be **nuclear terrorists from stealing it** to make a nuclear bomb**, this immobilized plutonium could be buried with radioactive spent fuel or nuclear waste in 500-meter deep repositories.** Another option would be to dump this mixture into 5000-meter-deep boreholes where it could never be retrieved, although this seems like the beginning of a story involving mole people. Although a number of countries are moving forward with plans for storing nuclear waste, the prospect of storing purified plutonium hasn’t been explored extensively since most countries have been pursuing the recycling option.

#### [5] Terrorist groups would have an exceedingly difficult time constructing a nuclear weapon. Mark.

[Mark, Carson. J. Carson Mark is a member of the Nuclear Regulatory Commission's Ad visory Committee on Reactor Safeguards and of the Foreign Weapons Eval uation Group of the U.S. Air Force. He is a former division leader of Los Alamos National Laboratories' Theoretical Division and serves as a consultant to Los Alamos and a number of governmental agencies. “Can Terrorists Build Nuclear Weapons?” Nuclear Control Institute] SHS ZS

Crude designs are discussed primarily in the context of the problems facing a terrorist group. Schematic drawings of fission explosive devices of the earliest types showing in a qualitative way the principles used in achieving the first fission explosions are widely available. However, **the detailed design drawings** and specifications **that are essential** before it is possible **to plan the fabrication of actual parts are not available**. The preparation of these drawings requires a large number of man-hours and the direct participation of indi viduals thoroughly informed in several quite distinct areas: the physical, chemical, and metallurgical properties of the various materials to be used, as well as the characteristics affecting their fabrication; neutronic properties; radiation effects, both nuclear and biological; technology concerning high explosives and/or chemical propellants; some hydrodynamics; electrical cir cuitry; and others. **It is exceedingly unlikely that any single individual,** even after years of assiduous preparation, **could equip himself to proceed confidently in each part of this** diverse **range of necessary knowledge and skills**, so that it may be assumed that a team would have to be involved. The number of specialists required would depend on the background and experience of those enlisted, but their number could scarcely be fewer than three or four and might well have to be more. **The members of the team** would have to be chosen not only on the basis of their technical knowledge, experience, and skills but also on their willingness to apply their talents to such a project, although their susceptibility to coercion or considerations of personal gain could be factors. In any event, the necessary attributes **would be quite distinct from the paramilitary capability most often supposed to typify terrorists**. Assuming the existence of a subnational group equipped for the activist role of acquiring the necessary fissile material and the technical role of making effective use of it, the question arises as to the time they might need to get ready. The period would depend on a number of factors, such as the form and nature of the material acquired and the form in which the terrorists proposed to use it; the most important factor would be the extent of the preparation and practice that the group had carried out before the actual acquisition of the material. To minimize the time interval between acquisition and readiness, **the whole team would be required to prepare for a consid erable number of weeks** (or, more probably, months) prior to acquisition. With respect to uranium, most of the necessary preparation and practice could be worked through using natural uranium as a stand-in. The time intervals might range from a modest number of hours, on the supposition that enriched uranium oxide powder could be used as is, to a number of days in the event that uranium oxide powder or highly enriched (unirradiated) uranium reactor fuel elements were to be converted to ura nium metal. The time could be much longer if the specifications of the device had to be revised after the material was in hand. For plutonium, the time intervals would be longer because of the greatly increased hazards involved (and the absolute need of foreseeing, preparing for, and observing all the necessary precautions). in addition, although uranium could be used as a stand-in for plutonium in practice efforts, there would be no opportunity to try out some of the processes required for handling plutonium until a suf ficient supply was available. To achieve a minimum turnaround time, the terrorists would, before acquisition, have to decide whether to use the material as is or to convert it to metal. They would have to make the decision in part in order to proceed with the design considerations, in part because the amounts needed would be different in the two cases, and in part to obtain and set up any required equipment. For the first option---using oxides without conversion to metal---the terrorists would need accurate information in advance concerning the phys ical state, isotopic composition, and chemical constituents of the material to be used. Although they would save time by avoiding the need for chemical processing, one disadvantage (among others) is the requirement for more fissile material than would be needed were metal to be used. This larger amount of fissile (and associated) material would require a larger weight in the assembly mechanism to bring the material into an explosive configuration. As to the second option---converting the materials to metal---a smaller amount of fissile material could be used. However, **more time would be needed** and quite specialized equipment and techniques---whether merely to reduce an oxide to the metal or to separate the fissile material from the cladding layers in which it is pressed or sintered in the nuclear fuel elements of a research reactor, for example. **The necessary chemical operations**, as well as the methods of casting and machining the nuclear materials, can be (and have been) described in a straightforward manner, but their conduct **is most unlikely to proceed smoothly unless in the hands of someone with experience** in the particular techniques involved, and even then substantial problems could arise. The time factor enters the picture in a quite different way. In the event of timely detection of a theft of a significant amount of fissile material--- whether well suited for use in an explosive device or not---all relevant branches of a country's security forces would immediately mount an intensive response. In addition to all the usual intelligence methods, the most sensitive technical detection equipment available would be at their disposal. As long as thirty-five years ago, airborne radiation detectors proved effective in prospecting for uranium ore. Great improvements in such equipment have been realized since. A terrorist group would therefore have to proceed deliberately and with caution to have a good chance of avoiding any mishap in handling the material, while at the same time proceeding with all possible speed to reduce their chance of detection.

### Oil Spills PIC

Nukes key to stopping oil spills

#### [1] Nuclear experts agree it’s a terrible idea – it was proposed by unqualified bloggers and the USSR didn’t even do it with oil or underground. Broad 10

[William J. Broad, 6-2-2010, "Nuclear Option on Gulf Oil Spill? No Way, U.S. Says," No Publication, <https://www.nytimes.com/2010/06/03/us/03nuke.html>. William J. Broad is a science journalist and senior writer at The New York Times. He shared two Pulitzer Prizes with his colleagues, as well as an Emmy Award and a DuPont Award. He joined The Times in 1983 and writes about everything from exploding stars and the secret life of marine mammals to the spread of nuclear arms and the inside story on why the Titanic sank so rapidly. He is the author of “[The Science of Yoga: The Risks and the Rewards](http://www.amazon.com/Science-Yoga-Myths-Rewards/dp/1451641427)” (Simon & Schuster, 2012), which [was excerpted in The Times Magazine](http://www.nytimes.com/2012/01/08/magazine/how-yoga-can-wreck-your-body.html). In 1986, Mr. Broad was a member of the team that [won a Pulitzer Prize](http://www.nytimes.com/1986/04/18/nyregion/winners-of-pulitzer-prizes-in-journalism-letters-and-the-arts.html?scp=4&sq=pulitzer%20%22william%20j.%20broad%22%20star%20wars&st=cse) for coverage of the feasibility of the “Star Wars” antimissile program. And in 1987, he and Times colleagues [won a Pulitzer](http://www.nytimes.com/1987/04/17/nyregion/story-of-black-life-in-1950-s-captures-pulitzer-for-drama.html) for reporting on the Challenger space shuttle disaster. He was a [Pulitzer finalist](http://query.nytimes.com/gst/fullpage.html?res=9A04E1DC1E30F936A35757C0A9639C8B63&scp=&pagewanted=all) in 2005 for articles written with David E. Sanger on nuclear proliferation. In 2007, he and Mr. Sanger shared a [DuPont Award](http://www.columbia.edu/cu/news/07/01/dupont.html) from the Columbia University Graduate School of Journalism for the television documentary “Nuclear Jihad: Can Terrorists Get the Bomb?” Mr. Broad’s reporting has taken him to Paris, Vienna, Brazil, Ecuador, Kiev and Kazakhstan. In December 1991, while [reporting on nuclear arms](http://www.nytimes.com/1991/12/18/world/soviet-disarray-soviets-say-arms-scuttling-will-take-10-years.html?scp=1&sq=%22william%20j.%20broad%22%20december%201991%20soviet&st=cse), he was among the last Westerners to see the Soviet hammer and sickle flying over the Kremlin. Before joining The Times, Mr. Broad worked as a reporter in Washington for Science, the weekly magazine of the American Association for the Advancement of Science. He earned a master’s degree in the history of science from the University of Wisconsin, and in 1995 won the university’s Distinguished Service to Journalism Award.] Scarsdale CC

**Government and private nuclear experts agreed that using a nuclear bomb would be not only risky technically, with unknown and possibly disastrous consequences from radiation, but also unwise geopolitically**  **it would violate arms treaties that the United States has signed and championed over the decades** and do so at a time when President Obama is pushing for global nuclear disarmament. **The atomic option is perhaps the wildest among a flood of ideas proposed by bloggers**, scientists and other creative types **who have deluged government agencies and BP**, the company that drilled the well, with phone calls and e-mail messages. The Unified Command overseeing the Deepwater Horizon disaster features a “suggestions” button on its [official Web site](http://www.deepwaterhorizonresponse.com/go/site/2931/) and more than 7,800 people have already responded, according to the site. Among the suggestions: lowering giant plastic pillows to the seafloor and filling them with oil, dropping a huge block of concrete to squeeze off the flow and using magnetic clamps to attach pipes that would siphon off the leaking oil. Some have also suggested conventional explosives, claiming that oil prospectors on land have used such blasts to put out fires and seal boreholes. But oil engineers say that dynamite or other conventional explosives risk destroying the wellhead so that the flow could never be plugged from the top. Along with the kibbitzers, the government has also brought in experts from around the world  including scores of scientists from the [Los Alamos National Laboratory](http://www.lanl.gov/) and other government labs  to assist in the effort to cap the well. In theory, the nuclear option seems attractive because the extreme heat might create a tough seal. An exploding atom bomb generates temperatures hotter than the surface of the sun and, detonated underground, can turn acres of porous rock into a glassy plug, much like a huge stopper in a leaky bottle. Michael E. Webber, a mechanical engineer at the University of Texas, Austin, wrote to Dot Earth, a New York Times blog, in early May that he had surprised himself by considering what once seemed unthinkable. “Seafloor nuclear detonation,” [he wrote](http://dotearth.blogs.nytimes.com/2010/05/01/a-dumb-question-about-stanching-deep-oil/), “is starting to sound surprisingly feasible and appropriate.” **Much of the enthusiasm for an atomic approach is based on reports that the Soviet Union succeeded in using nuclear blasts to seal off gas wells.** Milo D. Nordyke, in a 2000 technical paper for the Lawrence Livermore National Laboratory in Livermore, Calif., described five Soviet blasts from 1966 to 1981. **All but the last blast were successful. The 1966 explosion put out a gas well fire that had raged uncontrolled for three years. But the last blast of the series, Mr. Nordyke wrote, “did not seal the well,”** perhaps because the nuclear engineers had poor geological data on the exact location of the borehole. [Robert S. Norris](http://www.nrdc.org/nuclear/norris/norris.asp), author of “Racing for the Bomb” and an atomic historian, noted that **all the Soviet blasts were on land and never involved oil**. Whatever the technical merits of using nuclear explosions for constructive purposes, **the end of the cold war brought wide agreement among nations to give up the conduct of all nuclear blasts, even for peaceful purposes**. The United States, after conducting more than 1,000 nuclear test explosions, detonated the last one in 1992, shaking the ground at the Nevada test site.

#### [2] Turn – it’s incredibly risky – things like ground collapse can easily worsen the oil flow. Radiation also independently turns your biodiversity impacts – you’re harming all the animals underground that are still important for the environment

#### [3] Other countries fill in – worst case scenario we get the US to drop a nuclear weapon in the spill since IndoPak eliminated their arsenals

#### [4] No impact to biodieversity -- Other species fill-in---their evidence relies on small-scale data

Kareiva 18—director of the Institute of the Environment and Sustainability at UCLA, as well as the Pritzker Distinguished Professor in Environment & Sustainability [Pete Kareiva and Valerie Carranza (Institute of the Environment and Sustainability), 4/1/2018, “Existential Risk due to Ecosystem Collapse: Nature Strikes Back”, Futures, <https://doi.org/10.1016/j.futures.2018.01.001>, Accessed through the Wake Forest Library] AMarb

The interesting question is whether any of the planetary thresholds other than CO2 could also portend existential risks. Here the answer is not clear. One boundary often mentioned as a concern for the fate of global civilization is biodiversity (Ehrlich & Ehrlich, 2012), with the proposed safety threshold being a loss of greater than .001% per year (Rockström et al., 2009). There is little evidence that this particular .001% annual loss is a threshold—and it is hard to imagine any data that would allow one to identify where the threshold was (Brook et al., 2013; Lenton & Williams, 2013). A better question is whether one can imagine any scenario by which the loss of too many species leads to the collapse of societies and environmental disasters, even though one cannot know the absolute number of extinctions that would be required to create this dystopia. While there are data that relate local reductions in species richness to altered ecosystem function, these results do not point to substantial existential risks. The data are small-scale experiments in which plant productivity, or nutrient retention is reduced as species number declines locally (Vellend, 2017), or are local observations of increased variability in fisheries yield when stock diversity is lost (Schindler et al., 2010). Those are not existential risks. To make the link even more tenuous, there is little evidence that biodiversity is even declining at local scales (Vellend et al 2017; Vellend et al., 2013). Total planetary biodiversity may be in decline, but local and regional biodiversity is often staying the same because species from elsewhere replace local losses, albeit homogenizing the world in the process. Although the majority of conservation scientists are likely to flinch at this conclusion, there is growing skepticism regarding the strength of evidence linking trends in biodiversity loss to an existential risk for humans (Maier, 2012; Vellend, 2014). Obviously if all biodiversity disappeared civilization would end—but no one is forecasting the loss of all species. It seems plausible that the loss of 90% of the world’s species could also be apocalyptic, but not one is predicting that degree of biodiversity loss either. Tragic, but plausible is the possibility our planet suffering a loss of as many as half of its species. If global biodiversity were halved, but at the same time locally the number of species stayed relatively stable, what would be the mechanism for an end-of-civilization or even end of human prosperity scenario? Extinctions and biodiversity loss are ethical and spiritual losses, but perhaps not an existential risk.

### Fracking PIC

Eliminate all nukes except those used for fracking.

#### [1] Turn: All fracking is bad – whether it be nuclear or conventional – tolerating the exception is net worse. Wilderness 19.

The Wilderness Society. “7 ways oil and gas drilling is bad for the environment.” Accessed 14 February 2020. SHS ZS

Oil and gas drilling is a dirty business **Oil and gas drilling has serious consequences for** our **wildlands** and communities. Drilling projects operate around the clock, **disrupting wildlife, water sources, human health, recreation** and other aspects of public lands that were set aside and held in trust for the American people. The Trump administration’s reckless policies put drilling above all else on public lands. The oil and gas industry is encroaching upon too many of our nation’s unspoiled wildlands. **And the consequences could be devastating for the environment and local communities**. 1. **Drilling disrupts wildlife habita**t Oil and gas extraction is a menace to wildlife. Loud noises, human movement and vehicle traffic from drilling operations can **disrupt avian species’ communication**, breeding and nesting. The infrastructure built for energy development can also get in the way. Powerlines, wellpads, fences, and roads fragment habitats for many species. The pronghorn antelope and mule deer in Wyoming are among the species most impacted. In the winter, some pronghorn travel south from the Grand Teton National Park to the Upper Green River Valley to escape heavy snow. Their journey is one of the longest big game migrations in the U.S. But recently, animals making this age-old trek have faced a series of obstacles, notably, intense activity in major natural gas fields. The pronghorn have to navigate past enormous wellpads and noisy compressor stations to find what forage hasn’t been bulldozed. Future energy development farther south could ultimately have major impacts on the abundance of this herd. 2. **Oil spills can be deadly to animals** Big oil spills are known killers of wildlife. Just think back to the explosion of BP’s Deepwater Horizon rig in the Gulf of Mexico in 2010. The resulting spill covered 68,000 square miles of sea surface and **killed approximately 1 million coastal** and offshore **seabirds**, 5,000 marine mammals and 1,000 sea turtles. Smaller spills, including of other substances in the oil extraction process, don’t always make the headlines but can also be dangerous. During oil extraction on land, drilling fluids are injected into the well for lubrication. These oil-based fluids known as "mud" are supposed to be captured in lined pits for disposal, but they’re often spilled and splashed around the drilling site. Big and small, **oil spills have been steadily increasing** in the West’s top producing states. A recent report by the Center for Western Priorities found that [2,834 oil spills](https://westernpriorities.org/2019/05/30/analysis-in-2018-the-wests-top-oil-and-gas-producing-states-reported-over-2800-spills/) were reported by oil and gas companies in Colorado, New Mexico and Wyoming in 2018 – a record number since the organization started to collect this data in 2015. These spills can have long-term environmental impacts and devastating effects on animals through direct contact, inhalation and ingestion of toxic chemicals. Oil and chemical spills can • Damage animals’ liver, kidney, spleen, brain or other organs • Cause cancer, immune system suppression and reproductive failure • Trigger **long-term ecological changes** by damaging animals’ nesting or breeding grounds In spite of these risks, the federal government is attempting to quietly open several marine sanctuaries and wilderness lands to drilling. One of the most shocking plans would hand over 19 million acres of untouched wilderness in [Alaska's Arctic Refuge](https://www.wilderness.org/wild-places/alaska/oil-drilling-arctic-national-wildlife-refuge) to oil and gas companies. The disastrous move would expose fragile wildlife and tundra to oil spills. 3. **Air and water pollution hurt local communities** There are [1.3 million](http://oilandgasthreatmap.com/threat-map/) oil and gas facilities across the U.S. – from active production wells to processing plants. More than 12 million people live within 1/2 mile of these facilities, and many are exposed to air and water pollution on a daily basis, which can lead to an array of health issues. The **most affected are people of color**, who typically [live in neighborhoods with more pollution](https://www.npr.org/sections/health-shots/2019/03/11/702348935/study-finds-racial-gap-between-who-causes-air-pollution-and-who-breathes-it). Oil and gas production are among the main culprits of air pollution – one of the world’s [biggest killers](https://www.unenvironment.org/news-and-stories/story/air-pollution-know-your-enemy) according to the United Nations. When fossil fuels are burned by power plants, automobiles and industrial facilities, they generate toxic gases. **Breathing this air can trigger respiratory problems** such as asthma, cardiovascular diseases, developmental issues and even cancer. The health risks from oil and gas extraction are not limited to air pollution. The drilling method of “fracking” is known for contaminating drinking water sources with chemicals that lead to cancer, birth defects and liver damage. The controversial method injects a mixture of water and chemicals into rock formations to release oil and gas. As a result, it generates [huge volumes of wastewater](https://www.motherjones.com/environment/2018/08/the-amount-of-toxic-wastewater-produced-by-fracking-is-unbelievable/) with dangerous chemicals that can leak to ponds, lagoons and underground aquifers. Although the health threats from oil and gas production are very real, the federal government continues to push for fossil fuel drilling near communities. The city of [Bakersfield, in California](https://www.wilderness.org/articles/blog/new-drilling-and-fracking-california-will-hurt-latino-communities), is a sad example of that trend. The Trump administration is pushing to open up more than one million acres of land to drilling and fracking in the region. The move would directly impact Latino communities. 4. **Dangerous emissions contribute to climate change** Since the industrial revolution, **humans have been burning more** and more **fossil fuels, releasing more greenhouse gases into the atmosphere.** These emissions have been trapping unwanted solar heat and causing the planet’s temperatures to rise. The consequences are all around us in the form of longer wildfire seasons, stronger hurricanes and harsher heatwaves. Most dirty emissions originate from fossil fuels. **The most abundant type of greenhouse gas is carbon dioxide**, primarily released into the air **through the burning of oil,** coal and gas that fuel everything from cars to manufacturing. Another gas, methane, is released during the extraction of natural gas through the method of “fracking.” The U.S. is one of the world’s top emitters, and yet the Trump administration has done little to tackle the problem. And there’s a lot that could be done right here in our back yard. Currently, 24 percent of all U.S. greenhouse gas emissions, including methane, can be traced to fossil fuel extracted from federal lands. The federal government should [rethink its practice of leasing public lands](https://www.wilderness.org/trumpemissions) to the fossil fuel industry. They should also regulate leaks and deliberate discharge of methane on our wild lands. Ultimately, the goal should be to install renewable energy projects at appropriate “low-impact” sites on public lands to accelerate the country’s transition from dirty to clean energy. 5. **Oil and gas development ruins pristine landscapes** Infrastructure built for oil and gas extraction can leave behind radical impacts on the land. The construction of roads, facilities and drilling sites known as well pads requires the use of heavy equipment and can destroy big chunks of pristine wilderness. The damage is often irreversible. [A University of Montana study](https://www.sciencedaily.com/releases/2015/04/150429094832.htm) found that between 2000 and 2012, fossil fuel infrastructure occupied about 3 million hectares of land in the country – the equivalent of three Yellowstone National Parks. Those developments removed large amounts of rangelands and vegetation that is used by wildlife and people. The study’s researchers warned that even if oil and gas companies eventually abandon these sites, it can take centuries before the land fully recovers. The problem is that most fossil fuel development is located in semi-arid climate that receives little precipitation. A full recovery would require human intervention and a bundle of resources. Development of oil and gas complexes can cause serious and long-term damage to land, including • Stripping the environment of vegetation • Increasing erosion, which can lead to landslides and flooding • Disturbing the land’s ground surface • Seriously fragmenting unspoiled wildlife habitats 6. **Fossil fuel extraction turns visitors away** Hunters, anglers, hikers, birders and vacationing families go into the wilderness to experience nature in all its beauty. Oil tanks, power poles, noisy compressors and busy roads are not what they expect to see. Too much noise near a good fishing hole, a population of wildlife or a formerly peaceful landscape can ruin anyone’s nature getaway. The unsightly effects of oil and gas can degrade visitors’ experience on public lands and ultimately hurt local communities that depend on tourism. Outdoor recreation is a big driver of local and national economies. In 2018, visitors to national parks spent an estimated [$20.2 billion](https://www.nps.gov/orgs/1207/national-park-visitor-spending-contributed-40-billion-to-u-s-economy.htm) on their trips and supported 329,000 jobs, according to the National Park Service. But under Trump, polluters are getting to call the shots on public lands, ushering in a new era of unbridled energy development on wildlands that deserve preservation. 7. **Light pollution is impacting wildlife and wilderness** The glare from oil and gas sites is so strong that it’s even visible from space. [Photos of Earth](https://www.npr.org/sections/krulwich/2013/01/16/169511949/a-mysterious-patch-of-light-shows-up-in-the-north-dakota-dark) taken by NASA satellites show North Dakota's Bakken oil fields burning almost as bright as cities like Minneapolis and Chicago. Much of that light is produced by the burning – or flaring – of natural gas, well pads and storage sites. Scientists have found that the bright glow hurts pollinators such as bees. These insects have a very important job of moving pollen around to generates new fruits and plants. But luminosity disrupts their sleep, feeding and reproductive cycles, leading to the [dwindling of plants](https://www.sciencedaily.com/releases/2017/08/170802153907.htm) such as the cabbage thistle. The brightness is also changing uniquely beautiful landscapes like the [Chaco National Park](https://www.wilderness.org/wild-places/new-mexico/oil-and-gas-drilling-chaco-canyon). The park’s pristine skies could disappear to the human eye due to the glare coming from nearby oil and gas complexes. The park is known for being one of the best places in the world to stargaze, but the show could come to an end if the federal government doesn’t permanently protect the surrounding area from this development.

#### [2] Permutation do both – nuclear fracking isn’t an arsenal – it’s not a type of weapon so it doesn’t compete

#### [3] Turn: Nuclear fracking is dangerous – radiation fallout, leaked chemicals, and more. McMahon 14

[McMahon, Jeff. “U.S. Experimented With Nuclear Fracking.” Forbes. Published 29 January 2014] SHS ZS

And indeed they have. In December, 1967, scientists from the Atomic Energy Commission and officials from the U.S. Bureau of Mines and El Paso Natural Gas Company gathered at a gas well in northern New Mexico, near Farmington. They lowered a 29-kiloton nuclear device more than 4,000 feet down the shaft and set it off. PROMOTED It worked. "The 4,042-foot-deep detonation created a molten glass-lined cavern about 160 feet in diameter and 333 feet tall," according to the [American Oil and Gas Historical Society](http://aoghs.org/oilfield-technologies/project-gasbuggy/). "It collapsed within seconds. Subsequent measurements indicated fractures extended more than 200 feet in all directions – and significantly increased natural gas production." The Atomic Energy Commission tried twice more. In 1969 they set off a 43-kiloton nuclear bomb in an 8,500-foot deep well near Rulison, Colorado. In 1973 they set off three 33-kiloton bombs in a single well near Rifle, Colorado. In all three tests, they collaborated with the local gas utilities. The tests were part of the Plowshare Program—a government initiative to find peaceful uses for nuclear explosions—which was discontinued in 1975. **Nuclear fracking never became** a **common practice because of safety concerns**, public opposition and the growth of hydraulic fracturing, according to a [report](https://www.osti.gov/opennet/reports/plowshar.pdf) from the Department of Energy's Office of Scientific and Technical Information: **Although the technology was** demonstrated to be technically **feasible**, **it could not be proved** that **national energy needs justified the elaborate procedures that would be required**. **Concerns about the potential of the tritium contamination of the gas that would result** from nuclear explosive stimulation **were raised** by Colorado and western alliance agencies. These concerns and the lack of public support for the program made it unlikely that Congress would ever approve a commercial joint government-industry venture. By 1974, approximately 82 million dollars had been invested in the nuclear gas stimulation technology program .... It was estimated that even after 25 years of gas production of all the natural gas deemed recoverable, that only 15 to 40 percent of the investment could be recovered. At the same time, alternative, non-nuclear technologies were being developed, such as hydrofracturing. Consequently, under the pressure of economic and environmental concerns, the Plowshare Program was discontinued at the end of FY 1975. The three sites—the [Gasbuggy](http://www.lm.doe.gov/gasbuggy/Sites.aspx) site in New Mexico and the [Rulison](http://www.lm.doe.gov/Rulison/Sites.aspx) and [Rio Blanco](http://www.lm.doe.gov/Rio_Blanco/Sites.aspx) sites in Colorado—remain under the watch of DOE's Office of Legacy Management. **When DOE cleaned up** the Gasbuggy **site** in 2004, it used the well just as Jon Abel suggested it might: "**liquid radioactive waste was injected into the cavity formed by the nuclear explosion**; solid radioactive waste was removed to the Nevada Test Site," according to a DOE fact sheet ([pdf](http://www.lm.doe.gov/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=1500)). When Rio Blanco was cleaned up, radioactive materials were injected into the earth using one of the test wells. DOE and EPA officials conduct regular tests to determine whether radioactive liquids are migrating from these sites into adjacent groundwater. So far, they say, no leaks.

## AT Advantage CPs

### Both NFU CP

#### [1] Object fiat is a voting issue – you fiat the objective of the aff of not allowing states to use nuclear arsenals. A) ground – it’s impossible to leverage the aff against the CP since you scoop all of my solvency killing fairness b) clash – we don’t get contestation whether the aff is a good idea or not since you have the same advocacy killing education

#### [2] Permutation do both – adopt a NFU policy and eliminate nuclear arsenals – the net benefit is solving miscalc, terror, and proving countries are actually committed to not using nukes by taking the concrete action of removing them.

#### [3] India is intentionally ambiguous and unclear about a commitment to NFU and Pakistan doesn’t believe it anyway – proves it fails. Dalton 19.

[Dalton, Toby. Dalton is the co-director and a senior fellow of the Nuclear Policy Program at the Carnegie Endowment. An expert on nonproliferation and nuclear energy, his work addresses regional security challenges and the evolution of the global nuclear order. “Much Ado About India’s No-first-use Nuke Policy” Carnagie Endowment for International Peace. Published 26 September 2019] SHS ZS

* India wouldn’t feel obligated to follow it
* Pakistan doesn’t believe India – credibility is key

**Indian** **Defence** **Minister [said]** Rajnath Singh made headlines in August when he appeared to nullify India’s nuclear weapons no first use (NFU) policy. “Till today, our nuclear policy is ‘no first use’. **What happens in future depends on the circumstances**,” he said. In the context of Prime Minister Modi’s effort to project a more muscular image, Singh’s comments played well among Indian hawks. Internationally, however, **a more aggressive Indian nuclear policy is raising concerns** anew **about nuclear conflict** in South Asia. An NFU policy essentially constitutes a promise, backed by a survivable nuclear arsenal, to only use nuclear weapons in response to a nuclear attack. The logic is simple and effective: you don’t nuke me, and I won’t nuke you. India and China both have declared no-first-use policies, whereas Pakistan and the United States, among others, do not rule out the first use of nuclear weapons in a conflict. Since it was announced in 2003, **India’s NFU policy has taken regular fire from Indian strategists** and retired military officers. This debate burbled along among experts until 2014, when the election manifesto of the ruling BJP party called for the policy to be revised and updated. Though Modi himself called NFU part of India’s “cultural heritage,” his defence ministers cast doubt on its shelf-life. In 2016, Manohar Parrikar, Singh’s predecessor as **defence minister, wondered publicly why he should be bound by it.** Contemporary rumours from New Delhi suggest the government’s forthcoming National Security Strategy will put the final nail in the coffin of the NFU policy. Indian critics of NFU argue that the mere existence of the policy restricts New Delhi’s options in a conflict with Pakistan. They contend it would strengthen deterrence if Pakistan had to worry about whether its actions might provoke India to use nuclear weapons first. Some even argue that India should go further and develop the plans and capability for nuclear pre-emption. They fantasize about using the capability, early in a conflict, to take out Pakistan’s nuclear forces before they could be fired against India. These ideas sound very 1983, evoking a period of deepest danger between the United States and the Soviet Union. **Pervasive fear of pre-emption** among military planners **created an imperative to use nuclear weapons before the adversary**. American and Soviet leaders from the 1950s on fell prey to this fear and built ludicrously large nuclear arsenals as a result. They also placed nuclear weapons on a hair-trigger alert – a so-called launch-on-warning posture – in order to avoid losing their nuclear arsenals in a first strike. Fears of pre-emption also placed enormous time pressure on decision making during a crisis. To make a nuclear pre-emption policy credible, India’s nuclear forces would require significant modification, including in military preparations to use them. Until now, based on available data, India has yet to seriously grow its nuclear arsenal or place it on alert. Indeed, previous Indian governments, including the Vajpayee-led administration that ordered the 1998 nuclear tests, tended to downplay the military utility of nuclear weapons. Building up the nuclear arsenal and upgrading its readiness would be costly and complicated endeavours at a time when India already faces significant budgetary pressures amidst forecasts of anaemic economic growth. If Indian decision-makers skirt the hard choices and military investments necessary to carry out nuclear pre-emption, then doing away with NFU looks more like a cosmetic change to India’s nuclear policy. Soundbites like Singh’s thus feed a suspicion, in the words of noted Indian scholar Rajesh Rajagopalan, “that such proposals are ideologically-driven short-cuts to demonstrate ‘resolve’ rather than a careful response to India’s strategic problems.” So what, then, is the practical effect of India’s waffling on NFU? At some level, perhaps it is much ado about nothing. China rarely acknowledges India’s nuclear weapons. **Pakistani officials**, meanwhile**, argue they never believed India’s NFU pledge to begin with**. In an e-mail making the rounds after Singh’s remarks, the former head of Pakistan’s nuclear program, General Khalid **Kidwai**, derisively **dismissed India’s policy as “an academic formulation** aimed at point scoring and earning brownie points **with** the international community.” Further, **Indian statements have “no practical or operational connotations for Pakistan**. It’s a political statement directed to the domestic gallery in a display of yet another macho conduct,” he concluded. There are some international repercussions, however. For years, Indian diplomats and officials cultivated an image of India as a responsible nuclear state, one which does not make rash nuclear threats. This image bolstered India’s efforts to “de-hyphenate” itself from Pakistan and to be seen as an important power beyond South Asia. It also was a central argument in the failed campaign to gain India entry into the Nuclear Suppliers Group. Singh’s statement, coming on the heels of Modi’s campaign bluster that India’s nuclear weapons are not just for Diwali, vitiated this project. Unsurprisingly, some prominent architects of India’s nuclear policy are raising the alarm. For instance, former Indian foreign secretary and national security advisor Shyam Saran cautioned that, “The reputation we have built up as a responsible and reliable nuclear weapon state, which will act with restraint and prudence in handling these dangerous weapons, will be severely dented.” Reading between the lines of President Trump’s recent musings about “mediating Kashmir” suggests renewed international fears of nuclear conflict in South Asia. It may seem Pollyannaish to look for silver linings in India’s effort to recast its nuclear policy. Yet, with a broad election mandate, demonstrated power of persuasion, and legions of supporters ready to defend any move he makes, **Modi could** just as **easily choose to secure India through** both **strength** and accommodation. It is hard to assess the likelihood of such fantasy. Yet, few predicted that after calling the Soviet Union an “evil empire” in 1983, in 1984 President Reagan would authorise an effort to negotiate a comprehensive nuclear arms control agreement with the Moscow. These negotiations resulted in two landmark treaties that stopped the arms race and reduced the risks of a US-Soviet nuclear war. One hopes that over the course of his second term at the helm in India, Modi charts a similar course toward nuclear peace.

#### [4] Turn: NFU kills deterrence because states pledge not to retaliate with nuclear strikes to nuclear attacks which still allows for conventional war. Lowther 16

Ph.D., is a Director of the School for Advanced Nuclear Deterrence Studies, "A No-First-Use Policy Would Make the United States Less Secure", E-International Relations, <https://www.e-ir.info/2016/10/04/a-no-first-use-policy-would-make-the-united-states-less-secure/> SHS ZS

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Such a declaration would be a departure from the current U.S. policy of “calculated ambiguity.” **Since the dawn of the atomic age,** **the United States has** [**refused**](https://www.amazon.com/Deterrence-Second-Nuclear-Keith-Payne/dp/0813108950) **to specify** exactly wh**ich scenarios would lead to the use of its nuclear weapons**. **The ambiguity created** by having an undefined “red line” **contributed greatly to deterrence during the Cold War**—**including deterrence of large-scale attacks conducted with non-nuclear weapons**—and continues to do so today. The effect of **changing this policy would** be to **make the United States and its allies less secure** while failing to provide tangible nonproliferation benefits. The very term “no-first-use” is misleading. While a nuclear weapon has not been used in anger for over 70 years, **nuclear weapons are used every single day to deter large-scale conventional and nuclear attacks**. Former Air Force Chief of Staff General Larry Welch [points out](http://www.afgsc.af.mil/News/ArticleDisplay/tabid/2612/Article/454795/conference-room-dedicated-to-former-af-chief-of-staff.aspx) that “we have used the nuclear forces every second of every day for 50 years.” Moreover, **during those 50 years**, **humankind has experienced the most peaceful period in its history** as measured by the number of conflict-related casualties as a proportion of the world’s population. **This is due in large part to the devastating risks that nuclear weapons pose** to any society that is attacked with them. For the United States and the Soviet Union, **a large-scale nuclear exchange meant the end of society** as Americans and Russians had known it. **That risk led American and Soviet leaders to exercise a level of caution** and restraint that was not exercised by German, Japanese, and other world leaders in the years leading up to World War II. **If the United States were to adopt a no-first-use policy**, **the perceived threat of nuclear conflict** admittedly **would decline**. **While a decline in the perceived threat** of nuclear weapons use **may seem** like a **good** thing, however, **it is actually dangerous because it is that** very **perceived threat that gives leaders who may be contemplating the use of force the chance for second thoughts that can prevent great-power war**. This is an important point. **Opening the door to great-power conflict,** even if ever so slightly, **is** obviously **a step in the wrong direction**. Nor are great-power conflicts the only dangerous challenge that nuclear weapons deter. Biological, chemical, and even well-organized and targeted cyber-attacks can be as devastating as nuclear attacks. [Some proponents](https://fsi.stanford.edu/sites/default/files/51-3_12_Sagan_author_proof.pdf) may claim that the combination of a no-first-use policy and American conventional superiority plays to America’s strength, but recent history suggests that simply **using our conventional forces rarely achieves our political objectives**. It is also worth noting that the U.S. military is [overstretched](http://index.heritage.org/military/2016/) and on the verge of a readiness crisis. In the European theater, for example, North Atlantic Treaty Organization (NATO) forces are judged by many to be insufficient to counter a Russian military advance into the Baltics. Most important, the point of deterrence is to prevent a war from happening, which is frequently preferable to becoming engaged in a war even if one wins at the end of the day. In the context of the no-first-use policy, we must keep in mind that President Harry Truman made the decision to use nuclear weapons against Japan to prevent an estimated 500,000 or more American casualties in a planned invasion of Japan. We cannot know that future Presidents will not find the nation in a similar situation in which using nuclear weapons could end a war and save thousands or even millions of American lives. Such a decision ought never to be taken lightly, but considering how many times we have been wrong about the future, changing a policy that has served the United States and its allies so well since the end of the Cold War would be at best naïve and at worst dangerous, particularly since security trends for the United States point in a negative direction.

### India NFU; Pakistan Eliminate

#### [1] Permutation do both – India and Pakistan eliminate their nukes with India adopting NFU as well – the net benefit is avoiding miscalc and terrorist attacks and proving India is actually committed to not using their nukes by removing the weapons.

#### [2] India is intentionally ambiguous and unclear about a commitment to NFU and Pakistan doesn’t believe it anyway – proves it fails. Dalton 19.

[Dalton, Toby. Dalton is the co-director and a senior fellow of the Nuclear Policy Program at the Carnegie Endowment. An expert on nonproliferation and nuclear energy, his work addresses regional security challenges and the evolution of the global nuclear order. “Much Ado About India’s No-first-use Nuke Policy” Carnagie Endowment for International Peace. Published 26 September 2019] SHS ZS

* India wouldn’t feel obligated to follow it
* Pakistan doesn’t believe India – credibility is key

**Indian** **Defence** **Minister [said]** Rajnath Singh made headlines in August when he appeared to nullify India’s nuclear weapons no first use (NFU) policy. “Till today, our nuclear policy is ‘no first use’. **What happens in future depends on the circumstances**,” he said. In the context of Prime Minister Modi’s effort to project a more muscular image, Singh’s comments played well among Indian hawks. Internationally, however, **a more aggressive Indian nuclear policy is raising concerns** anew **about nuclear conflict** in South Asia. An NFU policy essentially constitutes a promise, backed by a survivable nuclear arsenal, to only use nuclear weapons in response to a nuclear attack. The logic is simple and effective: you don’t nuke me, and I won’t nuke you. India and China both have declared no-first-use policies, whereas Pakistan and the United States, among others, do not rule out the first use of nuclear weapons in a conflict. Since it was announced in 2003, **India’s NFU policy has taken regular fire from Indian strategists** and retired military officers. This debate burbled along among experts until 2014, when the election manifesto of the ruling BJP party called for the policy to be revised and updated. Though Modi himself called NFU part of India’s “cultural heritage,” his defence ministers cast doubt on its shelf-life. In 2016, Manohar Parrikar, Singh’s predecessor as **defence minister, wondered publicly why he should be bound by it.** Contemporary rumours from New Delhi suggest the government’s forthcoming National Security Strategy will put the final nail in the coffin of the NFU policy. Indian critics of NFU argue that the mere existence of the policy restricts New Delhi’s options in a conflict with Pakistan. They contend it would strengthen deterrence if Pakistan had to worry about whether its actions might provoke India to use nuclear weapons first. Some even argue that India should go further and develop the plans and capability for nuclear pre-emption. They fantasize about using the capability, early in a conflict, to take out Pakistan’s nuclear forces before they could be fired against India. These ideas sound very 1983, evoking a period of deepest danger between the United States and the Soviet Union. **Pervasive fear of pre-emption** among military planners **created an imperative to use nuclear weapons before the adversary**. American and Soviet leaders from the 1950s on fell prey to this fear and built ludicrously large nuclear arsenals as a result. They also placed nuclear weapons on a hair-trigger alert – a so-called launch-on-warning posture – in order to avoid losing their nuclear arsenals in a first strike. Fears of pre-emption also placed enormous time pressure on decision making during a crisis. To make a nuclear pre-emption policy credible, India’s nuclear forces would require significant modification, including in military preparations to use them. Until now, based on available data, India has yet to seriously grow its nuclear arsenal or place it on alert. Indeed, previous Indian governments, including the Vajpayee-led administration that ordered the 1998 nuclear tests, tended to downplay the military utility of nuclear weapons. Building up the nuclear arsenal and upgrading its readiness would be costly and complicated endeavours at a time when India already faces significant budgetary pressures amidst forecasts of anaemic economic growth. If Indian decision-makers skirt the hard choices and military investments necessary to carry out nuclear pre-emption, then doing away with NFU looks more like a cosmetic change to India’s nuclear policy. Soundbites like Singh’s thus feed a suspicion, in the words of noted Indian scholar Rajesh Rajagopalan, “that such proposals are ideologically-driven short-cuts to demonstrate ‘resolve’ rather than a careful response to India’s strategic problems.” So what, then, is the practical effect of India’s waffling on NFU? At some level, perhaps it is much ado about nothing. China rarely acknowledges India’s nuclear weapons. **Pakistani officials**, meanwhile**, argue they never believed India’s NFU pledge to begin with**. In an e-mail making the rounds after Singh’s remarks, the former head of Pakistan’s nuclear program, General Khalid **Kidwai**, derisively **dismissed India’s policy as “an academic formulation** aimed at point scoring and earning brownie points **with** the international community.” Further, **Indian statements have “no practical or operational connotations for Pakistan**. 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#### [4] Turn: One country maintaining nukes increase the tension between the two countries because one country will have a significant power advantage, allowing India to exploit Pakistan to follow its own interests. This will lead to increased probability of conflict, especially at a lower non-government level, and justify India to launch its nukes, leading to extinction.

#### [5] Fill in – Pakistan will just use other more conventional/chem/bio weapons to fill in for the risk India poses as a much more powerful country – this outweighs on logic – it’s the only way Pakistan could maintain presence in Kashmir, which is the root cause of all the conflict, meaning it doesn’t solve for the escalation advantage. Wouldn’t happen for the aff because if each country denuclearized, they would have equal power and be satisfied.

### No War Pact CP

Countries pledge to go to peace.

#### [1] Object fiat is a voting issue – you fiat the objective of the aff of not allowing states to use nuclear arsenals. A) ground – it’s impossible to leverage the aff against the CP since you scoop all of my solvency killing fairness b) clash – we don’t get contestation whether the aff is a good idea or not since you have the same advocacy killing education.

#### [2] Permutation do both – sign the no war pact and eliminate nuclear arsenals – the net benefit is avoiding miscalc, terror, and proving the country actually believes in the no war pact by take a concrete policy action to remove their arsenals.

#### [3] Permutation shields the link to the DA because without war, there’s no risk of weapon use.

#### [4] Grant me access to why fiatting the treaty fails a) the aff fiats one policy action whereas the CP fiats an entire mindset shift which is utopian fiat b) aff fiat is a single action whereas the neg’s fiat demands a constant affirmation that countries will stay at piece.

#### [5] No solvency – the CP doesn’t solve any of the aff’s aggression internal links, which means India is just as incentivized to violate and go to war with Pakistan over Kashmir. Independently doesn’t solve for terror and miscalc.

### Kashmir Humanitarian / Independence CP

UN declare Kashmir humanitarian crisis zone

#### [1] Permutation do both – declare Kashmir a humanitarian zone and eliminate nukes – the net benefit is India and Pakistan will be seen as legitimately taking the UN resolution seriously since they can’t go to conflict

#### [2] Solvency deficit – doesn’t solve for any of the aff’s other internal links for war

#### [3] Solvency deficit – doesn’t even solve for Kashmir because the root cause of cultural conflict will still be there, and it’s empirically proven that countries don’t listen to UN resolutions because there are no enforcement mechanisms

### IndoPak Reunite CP

They join back together

#### [1] Object fiat is a voting issue – you fiat the objective of the aff of not allowing India and Pakistan to use nukes against each other. A) ground – it’s impossible to leverage the aff against the CP since you scoop all of my solvency killing fairness b) clash – we don’t get contestation whether the aff is a good idea or not since you have the same advocacy killing education.

#### [2] Permutation do both – the states join together, and each side eliminates their nukes – the net benefit is solving nuclear terror and showing each country is truly incentivized to join together – India keeping nukes is a constant reminder of previous tensions and not truly being united

#### [3] Grant me access to why neg fiat fails a) the aff fiats one policy action whereas the CP fiats an entire mindset shift which is utopian fiat b) aff fiat is a single action whereas the neg’s fiat demands a constant affirmation that countries will stay together

#### [4] No solvency – reunification fails as the conflict is psychological which is irreparable. Kadir.

[Kadir, Jawad. I am a 2nd Year PhD student in the Department of Politics, Philosophy and Religion (PPR) in Lancaster University, UK. I have started my research work under the supervision of Dr. Amalendu Misra. I am analysing India-Pakistan conflict through a cross-disciplinary approach. I am trying to find out the cultural underpinning of India-Pakistan rivalry through a Psycho-Cultural prism. I am trying to provide Constructivist Approach in International Relations with a Psycho-Cultural tool-kit for examining this conflict in a better way. “India and Pakistan’s rivalry isn’t territorial or ideological – it’s psychological.” The conversation. Published 26 February 2018] SHS ZS

Ever since their birth as two separate countries in 1947, **India and Pakistan** **have been psychologically obsessed with** their assorted mutual **conflicts**. They have fought four conventional wars, and regularly display their [nuclear capability](https://theconversation.com/how-the-bomb-has-kept-the-peace-between-india-and-pakistan-45839) to outpace and undermine each other. From the outside, it resembles nothing so much as a family feud – and psychologically speaking, it’s a very apt analogy. Across the subcontinent, family and lineage are the most influential institutions in people’s lives, and people tend to transpose the psychological moral structure of their kinship relations into every other institution in the outside world. Respecting your seniors and expecting care and nurture is the norm, and **it holds sway in various forms across every sphere of life**. As one famous South Indian proverb puts it, after living together for six months, **“they” become “we” and “we” become “they”;** neighbours should be treated like family members. It is the violation of this norm that underpins the modern India-Pakistan (or Hindu-Muslim) rivalry. By the time of partition, the two sides had lived together in one society for more than a millennium. South Asian Hindus and Muslims shared not just a cultural gene pool and biological ties, but common kinship institutions: the extended family group joined by marriage, which is called Khandan in Pakistan and Pariwar in India, or the lineage group with common descendants, known as Biradari in Pakistan and Jati in India. **The rupture** between the two **can be traced to** what happened within **India’s predominantly Hindu Congress party**, which represented both communities against the British Raj in the years before the [partition of India and Pakistan](https://theconversation.com/how-the-partition-of-india-happened-and-why-its-effects-are-still-felt-today-81766) in 1947. As partition neared, **the reservations of Muslims were not properly considered**, and their demands were thus not met. **The Muslim minority was excluded** from most decisions, **which created** in them **a fear of “not mattering at all”.** The Muslims, suddenly the “junior” family members, felt neglected – and as younger siblings oftentimes do, they became extra-competitive. Them and us Viewed this way, **the India-Pakistan conflict owes more to historical and psychological “nearness” than** to mere **competition for resources or territory**. And that much is clear in the language they use to talk about each other. In many parts of India and Pakistan, especially in both Punjabs, the word used for the 1947 [Partition of India](https://theconversation.com/the-road-to-indias-partition-82432) is “batwara”, which literally means “the distribution of ancestral land” between brothers or patrilineal cousins. The word comes with resonances that the English word “partition” simply doesn’t carry: harmonious family, painful division, cousin rivalry, love-hate competition. These are the **psychological dynamics** that **play out in the dispute over Kashmir**. Both India and Pakistan claim Kashmir as if it were their ancestral property, and people on both sides feel a deep emotional attachment to it. In the subcontinent, to give up a claim to one’s ancestral property brings “dishonour” to one’s family and group, and is considered a weakness. For Pakistanis, the rivalry against Indians is driven by a deep sense of being “wronged” at the time of partition, the corollary being a “desire” to compete with and trump Indians at any cost. It’s **this bitterly competitive urge** that **drives Pakistan’s** leaders, army officers and populace **to defy India’s** obvious demographic, economic and military supremacy, and to do so with such intensity. As William Blake [said](http://www.bartleby.com/235/329.html), “it is easier to forgive an enemy than to forgive a friend”. Whoever we are, it seems we can all feel a special kind of enmity for the enemies we most resemble – whether a sibling or a neighbour, we simply cannot accept “them” as “us” despite our obvious similarities.

#### [5] No solvency – CP doesn’t solve for the religious intolerance between Hindus and Muslims which is the entire reason it split in the first place. This means conflicts will continue on a religious level leading to war. Komireddi 19.

[Komireddi, Kapil. “The Kashmir crisis isn’t about territory. It’s about a Hindu victory over Islam.” Washington Post. Published 16 August 2019] SHS ZS

For two weeks, Kashmir, India’s sole Muslim-majority state, has existed in a surreal state of nonexistence. Since a presidential decree abolished the state, revoked its autonomy and partitioned it into two federally administered territories, the Internet has been [shut down](https://www.washingtonpost.com/world/internet-mobile-blackout-shuts-down-communication-with-kashmir/2019/08/06/346d5150-b7c4-11e9-8e83-4e6687e99814_story.html?tid=lk_inline_manual_1&itid=lk_inline_manual_1), cellular networks have been disabled, and even landlines went dead. Public assembly is banned, and citizens are under curfew. A soldier has been [stationed](https://www.nytimes.com/2019/08/10/world/asia/kashmir-india-pakistan.html) outside every house in some villages. Eight million people have been cut off from the world — and from one another. Pharmacies are running out of medicine, households are low on food, and hospitals are [clogging up](https://www.washingtonpost.com/world/asia_pacific/pushed-to-the-wall-protests-erupt-in-kashmir-over-indian-move-to-end-autonomy/2019/08/09/9013f93e-ba06-11e9-8e83-4e6687e99814_story.html?tid=lk_inline_manual_1&itid=lk_inline_manual_1) with injured protesters. Narendra Modi, India’s prime minister, [insists](https://www.npr.org/2019/08/15/751416989/indias-modi-defends-moves-in-kashmir-as-lockdown-continues) that all this is for the good of the Kashmiris. India’s grip on Kashmir has seldom been stronger. Its hold on Kashmiris, however, has never been more threadbare. **Modi’s** sudden **takeover in Kashmir is the fulfillment of** a long ideological yearning to **make** **a** predominantly **Muslim population surrender to his vision of a** homogeneous **Hindu nation**. It is also a way of **conveying** to the rest of India — a union of dizzyingly diverse states — **that no one is exempt from the Hindu-power paradise** he wants to build on the subcontinent. Kashmir is both a warning and a template: Any state that deviates from this vision can be brought under Delhi’s thumb in the name of “unity.” Those who believe that such a day will never come — that India’s democratic institutions and minority protections will assert themselves — also never thought that someone like Modi would one day lead the country. Modi once seemed destined to disappear into history as a fanatical curio. As the newly appointed chief minister of Gujarat, he [presided](https://www.nytimes.com/interactive/2014/04/06/world/asia/modi-gujarat-riots-timeline.html) over the worst communal bloodletting in India’s recent history in 2002, when 1,000 Muslims, by a conservative estimate, were slaughtered by sword-wielding Hindus in his state over several weeks. Some accused Modi of [abetting](https://www.bbc.co.uk/news/world-south-asia-13170914) the mobs; others said he turned a blind eye to them. The carnage made Modi a pariah: Liberal Indians [likened](https://www.nytimes.com/2019/02/20/world/asia/india-modi-intellectuals-dissent.html) him to Hitler, the United States [denied](https://www.washingtonpost.com/news/worldviews/wp/2016/06/06/from-pariah-to-capitol-hill-narendra-modis-extraordinary-rise/?tid=lk_inline_manual_3&itid=lk_inline_manual_3) him a visa, and [Britain](https://www.telegraph.co.uk/news/worldnews/asia/india/9625212/Britain-ends-10-year-boycott-of-Narendra-Modi.html) and the [European Union](https://economictimes.indiatimes.com/news/politics-and-nation/eu-has-ended-narendra-modi-boycott-hints-german-envoy-michael-steiner/articleshow/18409827.cms?from=mdr) boycotted him. But Modi expanded and solidified his appeal among India’s Hindus, a religious majority whose resentment at being invaded and ruled for centuries by Muslims had been papered over for decades with platitudes from India’s secular elites. He used three powerful tools to propel his ascent. The first was sadism, the hint that, under him, Hindu radicals could indulge a dormant bloodlust: After the killing of a Muslim man in police custody, for instance, Modi [mused](https://books.google.co.uk/books?id=XAO3i_gS61wC&lpg=PA408&ots=pCI9yB3nJU&dq=modi%20%22kill%20them%20kill%20them%22&pg=PA408#v=onepage&q=modi%20%22kill%20them%20kill%20them%22&f=false) at a 2007 rally, “If AK-57 [sic] rifles are found at the residence of a person … should I not kill them?” (The crowd roared back: “Kill them! Kill them!”) The second was schadenfreude, an exultation in the torment of defenseless minorities: At an earlier rally in 2002, Modi had [ruminated](https://frontline.thehindu.com/static/html/fl2120/stories/20041008005601900.htm) on the fate of the Muslims displaced by the recent Gujarat riots, asking: “What should we do? Run relief camps for them? Do we want to open baby-producing centers?” His audience erupted with laughter. “We have to teach a lesson to those who are increasing population at an alarming rate,” he said. The final affect was self-pity, a license for Hindus to regard themselves as the real victims. He [told](https://www.firstpost.com/politics/1200-years-of-servitude-pm-modi-offers-food-for-thought-1567805.html) Parliament that India had been a slave nation for more than 1,000 years and [claimed](https://qz.com/india/836016/narendra-modi-makes-an-emotional-appeal-to-indians-to-bear-with-the-difficulties-caused-by-demonetisation/) that there were forces out to kill him. Since his 2014 election to the premiership, bigotry has been ennobled as a healthy form of self-assertion. [Lynchings](https://time.com/5617161/india-religious-hate-crimes-modi/) of Muslims — breathlessly [demonized](https://www.bbc.com/news/world-asia-india-42261797) as jihadists devoted to seducing and converting Hindu women — by aggrieved Hindu mobs have become such a common sport that dozens of videos of grisly murders circulate on WhatsApp groups run by Hindu nationalists. Last summer, a minister in Modi’s cabinet [garlanded](https://www.indiatoday.in/india/story/union-minister-jayant-sinha-garlands-8-convicted-for-ramgarh-mob-lynching-1279601-2018-07-06) eight men who had been convicted of lynching a Muslim man. In this universe, **Kashmir could never remain** **autonomous**, a place impervious to the desires of a majority happy to see its will done by violence. Modi’s reelection this year emboldened the supporters whose rage he skillfully incited. The prime minister rarely acknowledges the murders of minorities. Rarer still are instances when he condemns them. Not once, in fact, has he memorialized, by name, Muslims slain by Hindu fundamentalists. This is not an accident. It is a small step from letting Hindu vigilantes subjugate their Muslim neighbors to subjugating them himself, using the power of the state, as he has now done in Kashmir. Modi’s political awakening [occurred](https://caravanmagazine.in/reportage/emperor-uncrowned-narendra-modi-profile) in the training camps of the Rashtriya Swayamsevak Sangh, a right-wing paramilitary group that incubated the modern politics of Hindu nationalism. The RSS introduces young “volunteers” to the vast pantheon of supposed villains who plundered and emasculated India over the ages — the medieval Islamic invaders, the accommodationists like Mohandas Gandhi and the Congress party he led, the Muslim nationalists who mutilated India to create Pakistan and sought to abscond with Kashmir — and exhorts them to shed their Hindu impotence. The effect on Modi’s young mind was so powerful that he came to regard the RSS as his family, abandoned his wife and mother, and [wandered](https://www.bbc.co.uk/news/world-asia-india-20001001) through India as a catechist of the Hindu nationalist cause. **By seizing Kashmir, Modi has mollified votaries of Hindu nationalism and established himself as the father of** what they proudly [call](https://timesofindia.indiatimes.com/india/pms-decisive-leadership-ensured-delivery-of-justice-amit-shah/articleshow/70559657.cms) the **“**[**New India**](https://economictimes.indiatimes.com/news/elections/lok-sabha/india/we-will-now-begin-a-new-journey-to-build-a-new-india-narendra-modi/articleshow/69498239.cms)**.”** Kashmir was always at the top of their wish list, which also includes the construction of a temple in Ayodhya, where a mosque stood for half a millennium before Hindu nationalists [razed](https://www.washingtonpost.com/world/asia_pacific/indias-hindu-right-intensifies-a-religious-battle-over-a-demolished-mosque/2018/03/11/7a35de6a-170b-11e8-930c-45838ad0d77a_story.html?tid=lk_inline_manual_14&itid=lk_inline_manual_14) it in 1992; the erasure of small [privileges](https://www.financialexpress.com/india-news/narendra-modi-government-ends-haj-subsidy-for-muslims-says-wont-affect-cost-of-travel-to-mecca/1017463/) granted to minorities (such as a subsidy for the Muslim pilgrimmage to Mecca); **a legal** [**end**](https://www.thehansindia.com/news/national/modi-government-mulls-anti-conversion-bill-next-session-553876) **to religious conversions by Hindus**; an extra-legal [suppression](https://www.washingtonpost.com/world/asia_pacific/a-muslim-and-a-hindu-thought-they-could-be-a-couple-then-came-the-love-jihad-hit-list/2018/04/26/257010be-2d1b-11e8-8dc9-3b51e028b845_story.html?tid=lk_inline_manual_14&itid=lk_inline_manual_14) of interfaith romance and marriages, [especially](https://thewire.in/communalism/hindutva-activists-disrupt-wedding-ghaziabad-clash-police-love-jihad) when the bride is Hindu and the groom Muslim; and, ultimately**, the** [**rewriting**](https://www.indiatoday.in/india/story/union-minister-anant-kumar-hegde-bjp-altering-constitution-creates-ruckus-1116847-2017-12-27) **of the constitution to declare India a formally** [**Hindu state**](https://thewire.in/politics/rss-ideologue-govindacharya-we-will-rewrite-the-constitution-to-reflect-bharatiyata). But can India, the most heterogeneous society on Earth, survive the ascent of a majority like this? In his stirring inaugural speech to the first freely elected assembly of Kashmir in 1951, Sheikh Abdullah, the wildly popular socialist who championed Kashmir’s accession to India, [laid out](https://www.ikashmir.net/historicaldocuments/sheikhspeech.html) the choices before Kashmiris. India’s commitment to “secular democracy based upon justice, freedom and equality,” he explained, negated the “argument that the Muslims of Kashmir cannot have security in India.” India’s constitution, Abdullah said, “has amply and finally repudiated the concept of a religious state, which is a throwback to medievalism.” Abdullah denounced Pakistan, a quasi-theocracy that waged a war in 1948 to seize Kashmir, as “a feudal state” where “the appeal to religion constitutes a sentimental and a wrong approach.” But his rejection of Pakistan was also a reminder to India that **secularism was the nonnegotiable condition of Kashmir’s allegiance**. Kashmiris, he said, “will never accept a principle which seeks to favor the interests of one religion or social group against another.” That sentence was aimed then at Pakistan. It applies now to India. Kashmiri separatists who once labeled India a “Hindu state” could be dismissed at the time as chauvinists, and India could credibly argue for Kashmir’s place within its polyglot fold: The religion of Kashmiris was irrelevant to their full citizenship of the Indian state. But now the separatists’ claim against India has as much substance and weight as Abdullah’s against Pakistan. The argument of “[inclusive nationalism](https://www.thekashmirmonitor.net/how-the-congress-can-rediscover-itself/)” deployed by Modi’s predecessors to persuade Kashmiri separatists to participate in elections is unavailable to him, a religious nationalist. **An India that has ceased to be secular will have forever lost its argument for Kashmir**. The calm currently imposed on the region conceals a deep rage that is waiting to erupt. The abuse of Kashmir justified by Modi as “integration” may, if it is not confronted and reversed, be the beginning of the end of India’s unity.

### Bunkers CP

People hide in bunkers to survive nuke war. (Used with Spark)

#### [1] Permutation do both – eliminate nukes and install bunkers – the net benefit is preventing other conventional extinction scenarios which means perm shields the link to spark because we could outlive your extinction scenarios in bunkers

#### [2] Aff outweighs – a) magnitude – you still allow for the death of billions which is comparatively worse b) quality of life – life in bunkers would be miserable which outweighs under util. Force them to win an incredibly high probability of extinction under their model to justify this awful counterplan

#### [3] CP fails – our evidence indicates nuke war fallout will last for decades – several implications a) your bunkers won’t have enough food to survive so humans will starve b) uncertainty DA – humans won’t know when to come out of the bunkers which justifies them either starving or dying from radioactivity

### Cyber and Accidents CP

States increase network defenses, firewalls, implement nuclear communication systems, etc. Solves accidents/cyber

#### [1] Permutation do both – eliminate nukes and strengthen cyber defenses – the net benefit is preventing traditional escalation nuke war

#### [2] No link – our cyber offense is in the context of escalation – so long as Pakistan attempt to keep spying on India whether it be successful or fails that increases odds of war

#### [3] No solvency – cyber hackers will always get more advanced and beat your defenses – this is like saying fix nuke terror by adding more guards – the probability change is marginal – it’s the impact that counts

### De Alert CP

De alert their nuclear arsenals, make it take a long time for them to be used – solves cyber.

#### [1] Permutation do both – de-alert and get rid of the nuclear arsenals – they’re not textually competitive – the net benefit solves for traditional escalation

#### [2] No solvency for terror – they can still steal and acquire the nukes

#### [3] No solvency for miscalc/accidents – it’s impossible to de alert the subs as the weapons have to physically stay constructed underwater

#### [4] Deterrence fails under the CP – a) countries can take out enemies’ entire nuclear arsenal in a single strike killing second strike capability b) they could send tactical nukes to the other side to do a targeted strike and bet the opponent won’t retaliate to start nuclear war because by that point both arsenals would be fully de-alerted allowing for war but that’s still net worse

#### [5] De alerting is a horrible idea for defense – guts deterrence. Thompson 17.

[Thompson, Bert. “Bad Idea: De-Alert U.S. ICBMs.” Breaking Defense. Published 14 December 2017] SHS ZS

* Cyber threat won’t dissapear
* Decision makers have time anyway
* Kills second strike

**Picture** this. **U.S. early warning systems detect** what appears to be **the launch of multiple nuclear-tipped missiles** [**in Russia**](https://breakingdefense.com/tag/russia/), and the United States’ leadership is forced to make a snap decision based on incomplete information. Do we respond against the potential attack with [our own ICBM forces](https://breakingdefense.com/tag/icbms/) and escalate the situation to a full-scale nuclear war, or do we decide to wait and risk losing our land-based deterrent? We can all agree that this is the ultimate nightmare scenario. [DOWNLOAD FULL REPORT](http://defense360.csis.org/wp-content/uploads/2017/12/Hersman_De-Alert-ICBMs_Bad-Idea.pdf) Proponents of **de-alerting nuclear weapons**—that is, removing ground-based ICBMs from a status at which they can be launched in a matter of minutes—make a number of arguments centered around reducing nuclear risk, especially the risk of accidental or inadvertent launch. They envision [a number of scenarios](http://www.ucsusa.org/nuclear-weapons/hair-trigger-alert#.WiIMjbT80fE) that could result in the **United States launching its missiles erroneously**: a satellite receives a false warning of an attack or hackers “spoof” an incoming missile, and use-or-lose pressures emanating from putting nuclear weapons on “hair trigger alert” force leaders to escalate to full-scale retaliation. Some, like [Global Zero](https://www.globalzero.org/files/global_zero_commission_on_nuclear_risk_reduction_report_0.pdf), claim that the cyber threat “is reason enough to remove nuclear missiles from launch-ready alert.” **The solution**, they contend, is staring us in the face: **take the weapons off high alert and de-mate warheads** from our missiles. Further, they argue that this unilateral action would spur Russia or other adversaries to do the same, triggering a global reduction in nuclear risk. To a degree, they’re right. These risks do exist, and we need to think long and hard about solutions to each of them. However, **de-alerting is more of a solution in search of a problem, as the policy prescription does not fit the symptoms**. **Three main areas of concern emerge** out of the debate over de-alerting. First, **the threat of cyber attack would not disappear if we were to de-alert our nuclear weapons**. **Second, the decision makers contemplating whether or not to launch a nuclear strike** **would not** be able to **make a “better” decision in the event of a nuclear strike if the ICBMs were de-alerted.** Third, **de-alerting may embolden adversaries rather than pacify them, as it could provide the opportunity for a decapitation strike against the United States.** We need to recognize calls for de-alerting as what they really are: a means to reduce the utility of the U.S. missile force and implement [a de facto No-First Use (NFU) policy](https://breakingdefense.com/2016/07/no-first-use-dont-do-it-mr-president/). Shifting the argument away from alert status and centering it on the effects of such a policy will further dialogue on the issue and get to the core of proponents’ concerns. Like many other hot-button defense issues**, those in favor of de-alerting nuclear forces point to** the threat of **cyber attacks** on the nuclear arsenal. They rightly worry about this, as we do need to be concerned about cyber attacks on all elements of our nuclear force. Hackers have made advances that could disrupt our core conventional and nuclear command and control systems and pose a critical national security risk that needs to be addressed as rapidly as possible. But **the threats of cyberattack do not necessitate de-alerting**, as **cyberattacks against command and control would remain a threat in any nuclear scenario**, alert or de-alert. Instead of fundamentally changing U.S. nuclear posture because of these threats, **we should push for baking in greater resilience and cybersecurity measures**. These measures will be even more important as the United States begins its [$1.2 trillion nuclear modernization program](https://www.cbo.gov/publication/53211). Modernization may introduce more complex systems for nuclear command and control and new vectors for attacks and, consequently, must come with investments in more robust cyber defenses. There are general steps that should be taken to secure any critical U.S. government system, but especially those responsible for nuclear command and control. As outlined in the [Defense Science Board](https://www.acq.osd.mil/dsb/reports/2010s/DSB-CyberDeterrenceReport_02-28-17_Final.pdf) Task Force on Cyber Deterrence, there are a number of steps the United States can take to hedge against cyber threats to critical nuclear systems. Establishing a “thin line” of strategic offensive systems—conventional, nuclear, and cyber options—to respond in crisis scenarios would do much more to reduce the risk posed by cyber threats, as it would ensure a capable and ready infrastructure to respond after a crippling attack. Efforts to improve cyber attribution may also enhance deterrence against actors who believe they can attack our systems without any risk of being held accountable for their actions. Finally, we can tailor our cyber response to specific adversaries and establish more rungs—diplomatic measures, economic sanctions, etc.—in the escalation ladder for responding to cyber attacks, clearly demonstrating to our enemies that they will be punished for meddling with our strategic capabilities. Each of these measures would improve our overall response to cyber threats without adjusting our nuclear posture in a manner that would make us more vulnerable to attack. **In the event of a nuclear attack, the current alert posture would provide a known amount of decision time** **while** still **maintaining the option of response.** Because ICBM controllers are well-trained on executing launch orders, **decision makers know exactly how long they have until the last possible moments to issue such an order.** **Weapons on alert provide decision makers the most possible time for discussion** in the event of a first strike because they are ready to launch at a moment’s notice. Furthermore, **if weapons are de-alerted, the time it would take to put the weapons back on alert could cause them to be eliminated by an adversary’s first strike**. The process of putting them back on alert would take hours at a minimum, making the proposition that we could respond in this scenario dubious at best. **De-alerting does not allow the president to make a “better decision”; it increases the possibility of the ICBM leg of the triad being knocked out before launch**. De-mating nuclear warheads from their ICBMs could place the U.S. nuclear arsenal at significant risk and perhaps even invite a first strike from adversaries. Current procedure requires warheads be placed at central facilities at each ICBM base; a hypothetical de-alert would isolate the warheads in these facilities, which in turn would require much fewer enemy missiles to eliminate. Currently, the U.S. inventory of 400 missiles is deployed across the sprawling fields of the American Midwest, requiring adversaries to commit to a massive strike if they hope to render the U.S. incapable of massive and rapid retaliation. Combined with the nuclear submarine force and strategic bombers, this disincentivizes a first strike from adversaries as the likelihood that the entire U.S. arsenal would be destroyed is minimal. However, **if the warheads were de-alerted**, de-mated, and put into secure storage facilities at each of the three ICBM bases in the Midwest, **the number of warheads required to eliminate the U.S. ICBM force drops significantly.** **This frees up the rest of the adversary’s nuclear arsenal to target U.S. bomber bases and strategic submarines**. This shift may change the adversary’s calculus and create an overwhelming incentive for the adversary to attempt a first strike on our nuclear arsenal. Ultimately **this undermines the deterrent value of our nuclear force** across the board, which has widespread geopolitical implications. If an adversary perceives that the United States does not have the capability to quickly and immediately respond to a nuclear attack, it may decide to behave more aggressively towards both the U.S. and its allies. **There would be little incentive for adversaries to reciprocate our posture** in this instance and, even if publicly they did so, the inability to verify that they have de-alerted their forces means the risk of first strike would remain. Removing our arsenal from alert status does not reduce its vulnerability to cyber attacks, nor does it allow for more thoughtful decision making during a crisis. The practical effect of de-alerting is to diminish the role of the ICBM leg of the nuclear triad to the point of irrelevance. By eliminating the ICBMs as a rapid response force, de-alert proponents are essentially arguing for a nuclear posture that is less responsive, more defensive, and more closely resembles a dyad with bombers and nuclear submarines. It’s important to call a spade a spade. If we are going to have a debate whether we need a triad for deterrence, let’s have it. In a time of rising nuclear modernization costs, the argument to spend less on our ICBMs is appealing and enjoys the support of many in the nuclear community. But let’s have that discussion, not one that attempts to backdoor a way to a nuclear dyad. To argue that de-alerting nuclear weapons allows us to maintain our current posture, only with less risk, is disingenuous and distorts the argument away from the true goal of its proponents. De-alerting is an arms control placebo: it may put your mind at ease, but it does not cure the symptoms.

### Hotlines CP

Countries agree to cultivate better communication channels, build better infrastructure, etc

#### [1] Permutation do both – create better hotlines and eliminate nukes – net benefit is reducing chance of miscalc to 0%.

#### [2] No solvency – our miscalc internal link is in the context of India’s subs communicating with India itself, not Pakistan – and it doesn’t solve any of the other advantages obviously

#### [3] No solvency – India and Pakistan inherently don’t trust each other, which means even if you fiat communication it will all be for nothing since enemies assume lying. PTI 18.

[Pti. “India-Pakistan issues exist due to lack of trust, no easy and quick solutions possible: Former diplomat. Published 11 January 2018] SHS ZS

Mumbai: **There are no easy and quick solutions to issues between India and Pakistan**, a former diplomat has said. TCA Raghavan, the former Indian High Commissioner to Pakistan, said the **issues** between the two countries **are characterised by lack of trust** and they can only be addressed through diplomatic and political channels. "**I do not think there is an easy descriptive solution anyone can offer** on India-Pakistan issues," Raghavan said on Wednesday. "**The issues are of mistrust**. You can only address issues of mistrust through diplomatic and political processes. There are no easy, quick solutions," he said. **India-Pakistan ties have nose-dived over** a host of sticky issues, including cross-border **terrorism**. **The** 2017 **sentencing to death of Indian national** Kulbhushan Jadhav by a Pakistani court further deteriorated the bilateral ties. New Delhi has been insisting on an end to cross-border terrorism before a meaningful dialogue process can start with Islamabad. Raghavan said **visas have also been a factor in the relations** between the two neighbouring countries. "In the present context, visas have lost the kind of resonance they used to have, could be because technology could also be impacted in so many other ways through the Internet, through other communication platforms and so on," he said. Notably, External Affairs Minister Sushma Swaraj has been prompt in responding to distress calls of Pakistani nationals seeking visas for medical emergencies. Raghavan was speaking during a discussion at the launch of his book - The People Next Door: The Curious History of India-Pakistan Relations.

### ICBM Swap Keep Subs CP

States eliminate their ICBM nukes and keep sub nukes

#### [1] Double bind either a) non-nuclear means are key to deterrence which justifies the aff’s nuclear free world or b) nuclear means are good but this contradicts and turns your CP

#### [2] There is no net benefit to keeping subs – it’s worse under your CPs model since you advocate for no nukes

### India Strike Pakistan Nukes CP

India strikes and takes out all Pakistan nukes.

#### [1] Turn: Pakistan nuke locations are all not known – and even if India somehow knows all of them, even if their strikes miss one nuclear base Pakistan can retaliate and wipe out India, leading to all out nuclear war and extinction.

#### [2] Fails: Even if India is slightly more powerful than Pakistan, that isn’t enough to completely overwhelm all of Pakistan’s nukes without retaliation.

#### [3] Aff outweighs on risk – there’s the risk your counterplan goes completely wrong and leads to war, but with the aff we just fiat the removal of nuclear weapons which is inherently less risky.

#### [4] Turn: A nuclear strike would draw in allies of different countries’ allies and lead to all-out war – it’s not as simple as destroying the weapons.

### Virtual Nukes CP

States dismantle nukes and transition to virtual nukes. Wtf is a virtual nuke?? Strake

#### [1] Object fiat is a voting issue – you fiat the objective of the aff of not allowing states to use nuclear arsenals. A) ground – it’s impossible to leverage the aff against the CP since you scoop all of my solvency killing fairness b) clash – we don’t get contestation whether the aff is a good idea or not since you have the same advocacy killing education

#### [2] Virtual Nuclear Arsenals are compatible with the complete abolition of nuclear weapons – justifies the permutation

Paloczi-Horvath 98 [George Paloczi-Horvath, “Virtual Nuclear Capabilities and Deterrence in a World Without Nuclear Weapons.” VERIFICATION RESEARCH. TRAINING AND INFORMATION CENTRE. October 1998. <http://www.vertic.org/media/Archived_Publications/Research_Reports/Research_Report_3_Paloczi-Horvath.pdf>] CT

Virtual nuclear capabilities' (VNC can be defined as the ability of a state not equipped with nuclear weapons to produce them within a matter of months Or years, using fissile material and/of technological skills and materials available to it. • 'Virtual nuclear deterrence' (VND) would use these capabilities to a specific end. It could be a temporary posture adopted by former nuclear weapon states as a guarantee against nuclear weapon 'break out'. VND could hence reinforce a temporary security architecture) even if in this instance 'temporary' might mean up to around ten years. • In the context of getting to 'zero', VND would not be an end in itself, but rather serve as an element of the security architecture of a world free of nuclear weapons. • VND would only be adopted by the acknowledged nuclear weapon states (NWS)- China, France, the Russian Federation, the United Kingdom and the United States of America-after they commit to complete nuclear disarmament, sign the appropriate treaties and perceive the temporary adoption of this form of deterrence to be in their political and security interests. • As with the NWS, VND will only be accepted as an interim form of security by the de facto nuclear weapon states (DFNWS)-India, Israel and Pakistan-when they can be assured that their vital security interests would be guaranteed by other means after they sign a nuclear disarmament treaty. • There are several alternative approaches to VND. These range from various types of precise or explicit virtual deterrence to more implicit or tacit forms. • An explicit VND posture might allow materials and capabilities relevant to the construction of a nuclear weapon to be retained under verified arrangements for a limited time. This report explains why explicit VND would not be a reliable tool for reinforcing a nuclear disarmament treaty, as it could undermine the treaty's whole purpose. • An implicit VND posture would not permit the retention of any weapons-related fissile material or items specific to nuclear weapons. The nuclear disarmament treaty need not take specific account of implicit VND. It would entail only a tacit intellectual understanding that, in the early years after complete and timetabled nuclear disarmament, an NWS Or DFNWS might retain the de facto capability to re-arm. • An explicit VND regime would require intrusive and effective verification and enforcement measures and clearly defined regulations concerning their application. Implicit VND would not have such a 'regime' and would be verified in the same manner as a nuclear disarmament treaty and would hence not require separate arrangements. This report suggests that an implicit VND posture might help guarantee observance of a nuclear disarmament treaty during the early years after going to 'zero', by representing the ability of treaty signatories to re-arm in response to nuclear weapon 'break out'. • Any form of VND risks becoming a permanent state of affairs after nuclear arsenals are reduced to 'zero'. For this reason, a fully-implemented nuclear disarmament treaty cannot be regarded as the end of efforts to contain. and eventually eliminate, states parties' ability to recreate their arsenals. • It would be necessary for a nuclear disarmament treaty to include a codicil on restraint in official public statements about nuclear and delivery system capabilities in order not to undermine an implicit VND posture. • The objective would be to move beyond implicit VND to unambiguous nuclear disarmament over a defined period, so that this form of assumed deterrence is no longer needed. In any case, VNC would remain a permanent fact of life in a nuclear weapon-free world after going to 'zero'. Therefore, a time-limited security architecture should be part of the nuclear disarmament treaty, specifying exactly how long states can retain the nuclear weapons-related capabilities underpinning any VND posture.

#### [3] No competition – a) eliminate means “exclude (someone or something) from consideration.” (Google) – if nuclear weapons are virtual, they are unable to be considered for use b) even if you win your definition nukes are still eliminated because they are gotten rid of in their current form by transitioning them to a de mated form c) “elimination” doesn’t entail physical form if nukes are unable to be used they are eliminated insofar as they can’t serve their original purpose – justifies the permutation do both d)

#### [4] Turn – kills trust because if nukes still exist other countries will fear they will reassemble them and launch

#### [5] Verification is NUQ – states could still hide nukes to circumvent