

A World with Low Nuclear Numbers

Cornell University

November 11 – 12, 2016

## Workshop Summary

### **Introduction**

On November 11 – 12, 2016, the final workshop for the MacArthur-funded project “A Stable Transition to a New Nuclear Order” was held at Cornell University in Ithaca, New York. The workshop was organized by Judith Reppy and Catherine Kelleher and was attended by think tank experts, academics, and government officials from the United States and abroad. The following is a not-for-attribution summary of what was discussed.

### **Session 1: Paper: Stability at Low Nuclear Numbers: A Work in Progress**

#### *Remarks by Speaker*

The goal of the paper being presented was to review the contributions of the project to a renewed discussion of nuclear deterrence and strategic stability, including experiences with extended deterrence, in order to draw insights for the future. Over the last several years, there have been a number of shifts in the international system. Such disruptions have happened, and will continue to happen, along the road to lower nuclear numbers. It is therefore important to take the long view and build resilience in the face of such disruptions into any framework for stability at low numbers of nuclear weapons.

Throughout the project it has been difficult to establish what exactly would constitute “low numbers” of nuclear weapons. From a historical perspective, we are currently operating with low numbers of warheads. However, the large arsenals from the height of the Cold War were not needed then and are certainly not needed now, so using them as a starting point is unhelpful. An arbitrary but useful starting point for strategic stability at lower numbers could be an arsenal of 500 operational warheads for the United States and Russia. At such levels, much of the current architecture would still be in place, so this would not constitute a radical shift. It is only a reasonable goal for lower numbers within the current nuclear system. Given technological trends, going below 500 warheads within the current system would create doubt about the second strike capability of nuclear states, thus making such conditions unstable.

Going below 500 warheads would also require bringing additional nuclear weapons states into the reductions process, including the unofficial nuclear weapons states outside the Nonproliferation Treaty. Such negotiations would be more complex than the bilateral reductions between the United States and Russia. Lastly, such deep reductions would also require addressing conventional capabilities that could be used to threaten smaller nuclear arsenals.

One of the biggest obstacles on the road to lower numbers is the extended deterrence puzzle. The parties involved in an extended deterrence relationship choose not to closely examine how it works or why and instead simply put their faith in it. Any significant change in force posture or strategy could cause an examination of the underpinnings of extended deterrence which might

lead to its unravelling. Addressing the extended deterrence question and how to maintain extended deterrence in a world with fewer nuclear weapons is a major issue that must be thought through.

If the world is to move to lower nuclear numbers, how can an international system be crafted that accounts for the differences in regional dynamics? How can such a regime be universal? What needs to be done domestically, not just in the United States but in all nuclear weapons states, to enable deep reductions? The role of peace movements in initiating and sustaining a transition to lower numbers will likely be important.

*Remarks by Discussant*

How did deterrence come to occupy such a privileged place in discussions about strategic stability? The main reason that things developed this way is because nuclear weapons have such a large advantage in preemption, and there is no defense against them. Deterrence created a dangerous illusion of control in international politics and contributed to a myth of stability. This myth of stability has been extended to the United States' extended deterrence relationships as an article of faith.

In order to safely reduce the world's nuclear arsenals to much lower numbers, an international system must be created wherein there is no incentive for preemption. This is an extremely tall order. It requires not only faith that nuclear weapons won't be used coercively to gain a bargaining advantage, but also that conventional weapons won't be used in such a way, lest a state be tempted to respond to conventional superiority with a nuclear capability.

As the paper suggests, a stable transition to lower numbers is an oxymoron. In order to make the transition from the status quo to a new incentive structure, some instability will be inevitable and even required, and it is in those periods of instability that the transition will be most dangerous. To many, this is reason enough to proceed with extreme caution. But it is important to note that the international system has already gone through several periods of instability at relatively *high* numbers of nuclear weapons, and the world emerged unscathed. In fact, it has been during relative periods of instability that progress towards lower numbers has been made. There are two major examples: the Berlin Crisis, and the Cuban Missile Crisis. These two periods of extreme instability led to greater communication between the United States and the Soviet Union and to a series of arms control measures that established greater stability. The end of the Cold War was also an uncertain time but it led to massive reductions by both sides and to the cooperative threat reduction programs that might serve as an example for future regimes governing nuclear material.

Reducing to lower numbers of nuclear weapons may in fact be no more destabilizing than the uses for which nuclear arsenals are maintained in the first place. Contrary to the "long peace" theory that says that nuclear weapons have prevented great power war since their invention, there is convincing evidence that nuclear weapons have contributed to aggressive state behavior. Either way, instability and risk exist in the international system, and it is important to build institutions that will mitigate and manage this risk regardless of the size of nuclear arsenals around the world.

An important part of enabling such institutions to manage global risk is lifting the cloud of secrecy that exists over many states' nuclear arsenals. Transparency is better in the United States than it has been in decades past, but there is still a long way to go. In other countries information

about its nuclear weapons is becoming harder, not easier, to find. Global institutions will not be able to manage nuclear risk and bring about smaller arsenals if domestically countries are not expected to be more transparent about their nuclear weapons. If past is prologue, peace and social justice movements will need to make nuclear reductions a priority for progress to be made towards disarmament.

### *Discussion*

The discussion began with the role that social movements have played, and will need to play, in nuclear reductions. There is currently an effort by some in the climate change movement to address nuclear issues. So far their impact has been small, but as climate change continues to grow as an issue of concern for many people in coastal regions of the world, it will be interesting to see how nuclear reductions fit into the growing concern about climate change.

The discussion then turned to the role of Congress in debating or even authorizing nuclear use. As one expert on Congress made clear, there is no congressional role under the constitution to control or limit the way in which a president conducts a conflict. The only way to ensure responsible decision-making about nuclear weapons is to elect responsible people.

Many of the projects addressing nuclear reductions grew out of President Obama's Prague speech in 2009 and the writings of the "4 Horsemen" promoting arms control and disarmament. The election of Donald Trump to the presidency throws this agenda into question, but the truth is that the path to lower numbers was in jeopardy the entire time because of emerging regional trends. These trends created a competing narrative about a "second nuclear age" that saw nuclear dangers increasing, not decreasing. For insight into Trump's policies on nuclear weapons, look at who his administration appoints to key positions in the State and Defense Departments. Some former Bush administration officials are quite hawkish and would promote a more robust role for nuclear weapons in U.S. defense posture. But others are actually advocates of disarmament, so it is impossible to know what shape Trump's nuclear weapons policy will take.

One attendee took issue with the characterization of the role of nuclear weapons in extended deterrence. Saying that reducing nuclear weapons beyond what is needed for extended deterrence but within what is needed for core deterrence has two flaws. First, it assumes that allies under the extended deterrence umbrella are irrationally basing their assessments on arbitrary and emotional factors and not on rational analysis. Second, it implies that the requirements for core deterrence are known. Neither is accurate.

Another attendee noted that mass movements focused on nuclear issues largely ended with the Cold War and most Americans simply aren't paying enough attention to global issues to be concerned about nuclear war. Most people assume that the problem has been taken care of. If and when mass movements arise, they usually echo existing debates between experts; they rarely promote new ideas or force governments to do something they are strongly opposed to doing.

## **Session 2: Designing Institutions for a World of Low Nuclear Numbers**

### *Speaker 1*

Legal claims have served an important role in making the costs of nuclear weapons more visible to a broader audience than they otherwise would be. Between 1946 and 1958, the United States detonated 67 nuclear devices in the Marshall Islands in the Pacific. Roughly 80% of atmospheric

tests were conducted in the Marshalls. This caused extensive damage to ancestral lands and massive radiation poisoning for the island's inhabitants. To say that deterrence has been a cost-free exercise ignores the communities like the Marshalls that have suffered to make deterrence possible.

Marshall Islanders and others have filed multiple lawsuits in U.S. and international courts to try to get access to information through the discovery process and to seek damages, but to little avail. However, the lawsuits continue to this day. Global disarmament movements have also participated in these lawsuits. This has given the Marshall Islands outsized influence in the nuclear disarmament debate, though the failure of these lawsuits to change policy expose international law as little more than global politics, dominated by the United States and other powers. Given that the Marshall Islands will also be disproportionately impacted by climate change, it is possible that we will see the merging of these two issues as environmental and geopolitical concerns that must both be addressed. Even if the lawsuits fail as a matter of law, they may contribute to success in the political arena.

### *Speaker 2*

The movement to reduce nuclear arsenals worldwide might have something to learn from other humanitarian arms control efforts such as the ban on landmines or cluster munitions. It began with NGOs, who had to work hard to establish credibility, working closely with international organizations who pushed the ban efforts to the forefront of the diplomatic agenda. One of the features of both of these successful ban movements was the presence of regional conferences, which were instrumental in persuading states to agree to participate in an international regime.

Another features of these successful efforts was the NGO networks' ability to share and disseminate information, specifically information about the suffering of survivors, to an international audience. NGOs continue to play an important role in monitoring and verifying compliance with these treaties, and in promoting awareness about violations that help reinforce taboos about their use.

What lessons from these success stories might apply to the nuclear reductions movement? Progress will be harder because the stakes are higher, but already the NGO community and like-minded states have succeeded in changing the tone of the debate. The illegality of nuclear use is now firmly established in international humanitarian law. What is missing is a visible public campaign that showcases and humanizes contemporary victims. Many people think that nuclear weapons have no victims so getting attention can be difficult. If victims, such as survivors of nuclear testing or nuclear accidents, can get their voices heard in a similar manner to that in which victims of landmines were heard, the possibilities for progress will expand.

Lastly, it will be important to establish a nuclear weapons convention. Any future nuclear weapons convention will need to address the manufacture of fissile material and nuclear weapons, as well as address the import and export of dual-use components. It will also need to address verification procedures.

### *Speaker 3*

If you are interested in reducing the numbers of nuclear weapons worldwide, and at some point completely eliminating them, you will have to work with the nuclear weapons states—it is not possible to circumvent them by working solely through international organizations. We don't yet know what Trump's policy on nuclear weapons will be, but if he picks extreme advisors such as

John Bolton, it won't be possible to work with the United States on reducing to lower numbers. Under such a scenario, opportunities for creative destruction should be investigated. How can advocates for reduction create the necessary conditions for reductions in the future even if the upcoming administration is not interested?

The automatic reaction to Trump's potential instability will be to preserve as much of the old order as possible. But it is worth considering what is worth preserving and what needs to change. During this upcoming period of uncertainty and change, efforts should be made to take advantage of the instability to discard unhelpful elements of the existing order and lay the foundation for a better international system, one that will make reductions to low nuclear numbers more possible.

An effort should be made to preserve as much of the formal arms control regime as possible. As frustrating as elements of this regime can be, including the NPT, they are extremely important and a necessary component of any future reductions policy. Elements of the old order that should be changed are the militarized forms of reassurance that place nuclear weapons in a central role.

As long as strategic stability remains the global framework for international security, reductions will be incremental and most likely will not lead to zero. An alternative to strategic stability needs to be devised and promoted. One such alternative is some sort of world government that removes the need for state competition, but that is unlikely to happen in the near future. In the meantime, a transition to a rules-based order, as opposed to a force-based order, should be promoted. So, too, should further engagement with non-state actors, including nuclear industry, civil society groups, and NGOs.

### *Discussion*

One participant questioned the third speaker's characterization of the current world order as driven primarily by the use of force. The vast majority of the world's disputes are solved diplomatically through a rules-based system. According to this participant, military force is more like an insurance policy against an unlikely breakdown or violation of the existing rules-based system.

The third speaker responded that the resource allocation by states, including the United States, in tools of international security does not support that characterization. The size of the defense budget far surpasses the State Department's budget or any other budget related to non-military tools of international security. Our central alliances are military alliances, and reassurance comes mostly in the form of military protection at the expense of other methods.

Another participant spoke about how the obstacle to greater action on humanitarian arms control is more willful ignorance than the difficulties in creating new knowledge. It was known that people have suffered from landmines and cluster munitions, but it was easier to ignore this suffering than to acknowledge it and thus feel compelled to take action. In the nuclear weapons case, it is even harder to use the stories of victims to generate support because the victim base has largely been bought off or bought out in court. This has helped to erase the stories of the victims upon whom deterrence has been built, making it harder to showcase the flaws of deterrence and advocate for an alternative. According to another expert, in terms of getting buy-in from governments for humanitarian arms control, there exists a fundamental difference between tactical weapons such as landmines and strategic weapons such as nuclear weapons. Getting governments to agree to a prohibition on landmines was easier because other weapons

could be found that would perform a similar function. The same cannot be said about nuclear weapons, meaning states will resist calls to prohibit them much harder.

Another attendee asked if the Joint Comprehensive Plan of Action (JCPOA) exemplifies the greater reliance on non-military tools to resolve international security disputes, and what its repeal by the Trump administration would mean for such efforts in the future. Others agreed that preserving the JCPOA should be a priority over the next four years, as should strengthening the regimes that would help keep Iran in line after the expiration of the JCPOA, such as the NPT.

The discussion then turned to the International Campaign to Abolish Nuclear Weapons (ICAN). Many participants believed that ICAN needed to do a better job with outreach and bringing in different groups of people in order to expand its influence and credibility. It seems that ICAN and other such organizations are becoming more like focus groups and less like mass movements. Past examples of successful tactics to raise awareness, such as the baby teeth study, should not go overlooked by today's movements.

### **Session 3: Regional Complications: Asia**

#### *Speaker 1*

In the aftermath of Donald Trump's election, the arms control community might shift its focus on preventing bad outcomes instead of promoting a positive arms control agenda. This will certainly be necessary. But advancing an arms control agenda should not be completely ignored.

Some in China prefer Trump to Clinton, believing that Trump is a dealmaker that China can work with as opposed to Clinton, who was seen as motivated by issues like human rights. According to this viewpoint, there are more opportunities for pragmatic quid-pro-quos with Trump. One possible deal that China envisions with Trump is a deal wherein U.S. nuclear primacy is solidified (with China maintaining its minimal deterrence arsenal) in exchange for U.S. commitments not to conduct strategic anti-submarine warfare activities against China's submarine-based nuclear forces. China is becoming increasingly worried about such anti-submarine warfare activities, just as it is worried about missile defense and conventional prompt global strike as capabilities that might undermine its strategic deterrent. Trump might agree to this deal because of the massive cost of deploying attack submarines to the Pacific. The possibilities for a deal about missile defense will depend on how influential the pro-missile defense Republicans in Congress and the Defense Department are in the Trump administration.

The growing importance of, and uncertainty surrounding, emerging technologies present a major obstacle to lower nuclear numbers in Asia. If we stick to the current strategic stability framework, the quest for reductions will be a losing battle. Cyber, missile defense, conventional prompt global strike, and new space technologies all threaten the survivability of nuclear forces in a way that might cause arms racing. Coming to a comprehensive agreement designed to control all of these issues simultaneously will be extremely difficult.

Convincing countries to adopt a new framework in lieu of strategic stability will also be difficult and will take time. In the interim, the focus should be on preventing the implementation of destabilizing policies during this uncertain period.

### *Speaker 2*

Most states do not oppose disarmament in theory, but each state agrees to it only with caveats, often complaining about an unfair global order and the hypocrisy of the nuclear superpowers. Each state puts forward its own proposals for reframing international security and reducing the incentives for an arms race. But these proposals all end up promoting their own interests without any effort to reconcile opposing viewpoints or interests. For example, disarmament in Pakistan is tied to the resolution of the Kashmir issue, but Pakistan never discusses what it would be willing to give up to resolve the issue. As long as disarmament is seen as a disguise for promoting a state's individual security interests, and as long as the myth of strategic stability exists, cooperation towards disarmament will not be possible.

Under these circumstances, what can be done to promote stability at lower numbers of nuclear weapons? Might a nuclear weapons convention incentivize states like Pakistan to become more amenable to compromise? Can larger nuclear states come to bilateral agreements with Pakistan to help it freeze its nuclear development or even roll it back? Might a regional arrangement be possible, such as a regional nonproliferation treaty? The assessment of the speaker is that such strategies are unlikely to succeed.

Coming to an agreement on a numerical limit that would represent stable deterrence for all the countries in South Asia would be useful. The problem is that China looks not just to South Asia but to the United States and Russia, so changes in the U.S.-China nuclear relationship or the U.S.-Russia nuclear relationship can cause the calculus of India and Pakistan to change. This interconnectivity makes establishing an arms control regime based on numerical limits difficult.

In light of all these roadblocks, the only path forward is to reframe the conventional wisdom away from strategic stability and towards another paradigm. Reframing this paradigm must use the language of security and appeal to the core national security interests of all states. Addressing the issue from a global or humanitarian perspective is unlikely to be persuasive to decision makers and thus will not produce results.

### *Speaker 3*

Moving away from strategic stability as the overarching paradigm for international security is unlikely to enable a move toward lower numbers. Nuclear weapons are not only seen as instruments of deterrence but as a currency of power and prestige. They are still seen as a necessary step towards being taken seriously on the international stage. As long as this is the case, disarmament will be difficult to promote.

However, India, even after acquiring nuclear weapons itself, has continued to promote arms control measures to a greater degree than other nuclear states. India has frequently put forward proposals for a better nuclear order and has advocated a policy of global no first use. Some of this might simply be talk, but India does seem to have a genuine desire to move to lower numbers.

India currently has around 110 weapons and is on track to have around 250 weapons in 10 years. At such low numbers already, reductions by the United States, Russia, and China are unlikely to prompt reductions in India. India is already committed to minimum deterrence and, despite having tested low-yield nuclear devices, is committed to not deploying tactical nuclear weapons. It also has a no first use policy, though it is not as strong as China's. The growth in its nuclear arsenal is not designed to gain an advantage but to strengthen a second strike capability. There is

no interest in numerical parity with either China or Pakistan, both of which probably have more warheads than India does.

Confidence building measures between India and Pakistan are tainted by Pakistan's insistence on including conventional military issues instead of just focusing on the nuclear relationship. India does not wish to mix the two, which causes a deadlock. A solution to this deadlock must be found because confidence building measures are important for a stable nuclear relationship.

### *Discussion*

One participant asked about the strength of the command and control systems in South Asia. Because there are lower numbers of nuclear weapons, there are fewer of them that can be lost or misused during peacetime, so having strong command and control is essential for protecting against accidental or unauthorized launch. The third speaker responded that in India, command and control is sound. There is a parallel command structure for nuclear weapons. The issue is that this parallel command structure ends up making targeting decisions that the political class may not be aware of, without any parliamentary oversight.

Another participant brought up the uncertainty about Trump's East Asia policies because he appears to view China only as a trade issue and U.S. allies in the region as burdens. In such a framework, there is no role for either arms control or missile defense. However, Trump will be drawing upon advisers and appointees from the George W. Bush administration, many of whom are in favor of strong missile defense.

In response to the discussion about the role of prestige in states acquiring and maintaining nuclear arsenals, another participant said that how a state manages its nuclear weapons is also a matter of prestige. China looks to the United States—considered the most sophisticated nuclear power—and observes how it structures its nuclear force. China is considering a launch-on-command posture because the United States has such a posture and China believes it should mimic the most prestigious nuclear power.

Another attendee responded that prestige makes sense if you get the payoff you expect, but this is dependent on the audience's response. Given that there are currently many states that could acquire nuclear weapons but choose not to, the prestige rationale for nuclear weapons may not be as salient today as it was in the past. Other attendees disagreed, saying that nuclear weapons give states a strength that requires other states to take them seriously. It is not a coincidence that all five members of the Security Council are nuclear powers. Prestige may be the wrong way to think about the benefit of nuclear weapons—size and stature might be more accurate.

## **Session 4: What Future for Arms Control?**

### *Speaker 1*

The prospects in the near term for further nuclear arms reductions are not good, and still would not have been good if Hillary Clinton had won the presidency. This is due to structural factors that are largely independent of politics.

The relationships between the large nuclear powers are not currently conducive to strategic arms control. Many people are now focusing on trying to extend New START, which expires in 2021, but the treaty has a provision for a five-year extension that can be authorized by executive agreement. Another option is to keep the current numerical limitations from New START but to



change the counting rules so that each bomber would start counting as two or three warheads instead of only one. This would be a clever method for bringing down the overall number of warheads.

There is a chance that Russia will not be interested in *any* movement on arms control, in which case some people are calling for unilateral reductions by the United States to about 1,000 deployed warheads. Some have argued that this would spark reciprocity on the Russian side, though the speaker was extremely skeptical about this. They would require concessions on other issues, such as missile defense, before they would reduce their arsenal either via reciprocity or by agreement.

It is important to understand what Russia's thinking is on these issues. Russia is less inclined than in the past to separate nuclear from conventional—it now views both as elements of strategic stability. Russia wants legally binding limits that restrict the quantity, location, and speed of missile defenses. Most serious Russian analysts know that U.S. missile defenses don't threaten Russia's strategic forces, but most of them are unwilling to say so publicly. The Russian government wishes to continue using opposition to missile defense as a political weapon and justification for its own escalatory behavior.

Regarding conventional weapons, Russia remains concerned about Conventional Prompt Global Strike. Because no such weapons yet exist, it is possible to imagine limits being placed on their development before they are procured in large numbers. The overall Russian-NATO balance is also becoming a major Russian concern. If the INF Treaty is not resolved in a satisfactory way, it will be impossible to get any future arms control agreement through the Senate.

Discussing the uncertainty stemming from Trump's election is unavoidable, even when taking the long view. Trump may believe he can do things that others can't, but it is unclear what he will propose or would be willing to concede. A major concern is that he might cause the collapse of the JCPOA, which would be a major setback from nonproliferation.

### *Speaker 2*

The United States needs to put more effort into understanding the Russian strategy. The Russians are creating a belt of instability around the southwestern Russian periphery. This might sound paradoxical from a Western perspective, because the West values stability and wouldn't actively promote instability. But this strategy makes more sense once one understands that the Kremlin sees Russia as a status quo power which always had special status in the post-Soviet states, and the United States and NATO as status quo challengers. Russia sees its actions as self-defense. Because the West has greater resources, they feel forced to use asymmetrical means, including what Dima Adamsky calls cross-domain coercion. This means spreading the conflict to every aspect of Russia's relationship with the West to compensate for the disadvantage it would suffer if the conflict were contained to a single domain.

Electing Hillary Clinton would have more or less kept the status quo, but there is no way to know how Donald Trump will change the U.S. relationship with Russia. Trump will have to deal with Russia hawks within the Republican Party and balance them against his own pro-Russia leanings. It is unclear if he will have a hands-off policy towards Russia and security in Europe, or if he will try to "get a deal." This is highly problematic for NATO member states and for many members of the GOP. Many fear that both sides could double down on risk taking.

During this time of instability, NATO should leave its nuclear forces untouched and should avoid increasing its military presence in the Baltic States unless Russia starts moving more forces there. The best way to counter Russia's salami tactics is by presenting a unified diplomatic front. Russia is engaging in risk taking but still does care about its image. The diplomatic focus for the United States should also be on reassuring its NATO allies after Trump's isolationist campaign.

None of this bodes well for arms control. Arms control is contingent upon both sides believing that the status quo is better than significant change. But both sides see the other as status quo challengers, making both sides less interested in an agreement wherein the opposite party cannot be trusted to maintain the status quo. We must also be cautious that Trump will view Russian modernization as a reason for the United States to back out of New START.

### *Speaker 3*

The arms control of the past was germane to a specific environment with a specific partner (Russia), and is no longer applicable today. In order for arms control to survive in the contemporary environment, it will have to evolve. Historically, arms control has been an effective tool. It has increased security and lowered uncertainty. Best practices for building arms control regimes that can manage uncertainty should be updated for the new age. The Iran Deal shows the way forward. Built into the agreement is a conflict resolution body structured to deal with both cheating and uncertainty in a fair and transparent way.

Reduction agreements are no longer the gold standard for an arms control agreement. Other factors matter more.

Access to information about the weapons possessed by other states—transparency—is becoming the most important factor in increasing security between states. Instead of focusing on keeping New START, arms control advocates should fret about the Cooperative Threat Reduction programs that were so successful but are now gone.

Going forward, the arms control community must make sure we don't backslide while at the same time putting forward new ideas. We also need to be aware of which states might be the proliferators of the future and begin focusing on them now, before it's too late.

### *Discussion*

The discussion began by talking about why transparency is a more important objective than numerical reductions. According to one participant, the numbers do not matter, it is the transparency that provides the benefits to each side in terms of national security interests and helps prevent war. Everyone agreed that transparency was extremely important, but some participants believe that numbers also matter, namely because lower numbers help with transparency. If there are fewer weapons, there are fewer objects that need to be catalogued and inspected, and there is less opportunity for cheating. Another attendee pointed out that it is easy to promote transparency and view it as helpful if you are the stronger power. The weaker power will always fear that transparency will give the stronger power an unfair advantage.

Talk then shifted to New START. One participant noted speaker 2's point about Trump potentially viewing Russia's modernization as a threat to the United States and withdrawing from New START, and agreed that it's possible that the treaty might not survive until 2018, let alone 2021. This is because Russia has problems with how the United States has been implementing the treaty, though this participant could not specify any details. Russia may not

wait for Trump to walk away from New START. And there are many in Congress who never liked the treaty and would be happy to see it fail.

Another idea that was discussed was zero-based thinking—wiping the slate clean and thinking about what we would build if we were starting from scratch—which can be a useful way to think about what is actually necessary and what isn't. Because progress on conventional arms control is unlikely, this is a way to try to reframe the debate in preparation for a more conducive environment.

Another participant brought up that much of the talk about new arms control measures actually has a precedent in what would be dismissed as “old arms control,” and that creating a dichotomy between old and new is a distortion of the historical record.

The role of strategic-capable missile defenses will become larger as such capabilities grow over the next decade or two. This growth will come largely from an increase in naval interceptors. Current missile defense deployments are small and do not threaten the nuclear forces of either Russia or China. However, the deployments that will start in the 2020s may lead up to around 500 to 700 strategic-capable interceptors, mostly on ships, that will present a challenge to Russia and China. The U.S. Navy does not see these missiles as strategic in nature, they see them as battlefield weapons, so it will be hard to get them to accept limitations or reductions.

Deterrence requires duplicity somewhere, and the United States locates that duplicity in its discourse. For example, the United States may insinuate that it will retaliate with nuclear weapons for a certain action when in fact it knows it would not do so. China has a different relationship with public discourse, so their duplicity is located in their capability. This is why there are so many wide-ranging estimates about China's strategic capabilities. It is also another reason why China will resist efforts at greater transparency. China needs ambiguity in order to make deterrence work whereas the United States does not.

## **Session 5: Next Steps? Imagining the Future**

### *Speaker 1*

It is important to consider employment policy when thinking about how to reduce the numbers of nuclear weapons. Being smarter about what to target and how to target can enable the military to need fewer nuclear weapons in order to have the same military effect. This is how the Obama administration calculated that the United States could move to 1,000 warheads from the New START level of 1,550. The United States has a warfighting posture because it believes that is what deters nuclear war, not the threat of massive retaliation against enemy cities. If the U.S. military can find ways to allocate fewer warheads to fewer targets in enemy countries, the United States will not need as many nuclear weapons.

Some experts are promoting a reduction to “minimum deterrence” levels, relying on the threat of retaliation against population centers for deterrence instead of the ability to target military infrastructure with nuclear weapons. This would be a massive decrease in the number of nuclear warheads in the U.S. arsenal. Many experts have an issue with this posture because it may lack credibility, which would undermine strategic stability. If you want to reduce nuclear numbers but do not want to go down to a minimum deterrence posture, the focus needs to be on a war plan that allows for discrimination but with fewer targets and fewer warheads.

### *Speaker 2*

Arms control and disarmament are not the same thing. The goals of arms control are to reduce the risks of war occurring, reduce the damage of war if it does occur, and reduce costs during peacetime. These goals need to be pursued in a way that does not increase the likelihood of war through strategic instability. The goal of disarmament is to completely eliminate nuclear weapons. This can only be done if all countries involved allow inspections to verify that no nuclear weapons were secretly kept or were secretly being developed.

Many of the biggest reductions have happened informally, without any formal negotiating process or legally binding agreements. This has pros and cons. It makes reductions easier to enact but more difficult to verify and enforce.

According to this speaker, if the world can get to the year 2045 without the use of nuclear weapons in war, it will be an accomplishment. Avoiding nuclear use between now and then may depend on a greater degree of transparency than will be possible given today's political climate. The outcome of the 2016 election shows how easily people are willing to report and believe false stories. If the world reduces to lower numbers, it could encourage the news media to report on violations by the other side regardless of whether they were true or not. This would cause mistrust and instability. Learning to decipher between real information and noise in an age of big data will be key for making transparency effective for arms control.

### *Speaker 3*

In East Asia, it is common to hear that one of the major security concerns is a lack of confidence and a lack of trust. Often, confidence and trust are used interchangeably. However, they should be viewed as different. Confidence comes from the knowledge that an adversary cannot cause harm to your security, whereas trust comes from the belief that they won't use their power to cause harm to your security. To improve the quality of relationships in East Asia, it is important to start with confidence; trust is currently too difficult to build. Transparency is an important factor in building confidence. So is building empathy.

In East Asia, there is a systematic overestimation of the threat that the states in the region pose to each other. There is also a lack of self-awareness, especially with regard to a state's ability to make a mistake that could lead to miscalculation. There is a false belief that the Cold War ended without a nuclear war so the methods used by the United States and Soviet Union are fool-proof.

Building confidence, empathy, and self-awareness will be necessary for any future nuclear reductions to take place. This is difficult to do at an official level because it can be viewed domestically as weak and open the national leadership up to accusations of insufficient strength. National leaders also tend to be "type A" and less willing to engage in the introspection necessary for empathy and self-awareness.

### *Discussion*

The discussion began with a critique of the notion that minimum deterrence would force the United States to choose between capitulation or massive retaliation against cities. If the United States were to reduce the size of its arsenal to 500 warheads which were secure from a first strike, it could find 500 military targets for those weapons—it would not be forced to use those weapons against cities. One participant said that the best way to reduce nuclear numbers is to give the military alternative options to hit targets that are currently slated to be hit with nuclear weapons during wartime.

An attendee then refocused the discussion to the issue of trust, specifically in South Asia. There was a five-year peace process between India and Pakistan that was the best period in relations between the two countries since their independence. During this period, there was no trust, but there was confidence. This is evidence in favor of the distinction between trust and confidence explained by speaker 3. This shows that there is a much greater need to invest in incremental measures and confidence building measures.

Another participant said that trust is one of the most difficult things to accomplish in international relations. It is an extremely high bar to set as a goal between states. Because of this, it would be wise to invest in more limited forms of cooperation.

The next participant said that the western approach to building trust actually makes it impossible to build trust because the western insistence on verification shows the other side that they are not trusted. In order to have real trust, the possibility of cheating has to exist but there is trust that no cheating will happen. This participant agreed with the previous commentators that trust was thus too difficult a task to designate as a goal between states.