



INTERVIEWS

Over the past year, National Institute has conducted a series of interviews with key national security experts on a variety of contemporary defense and national security topics. In this issue of National Institute's *Journal of Policy & Strategy*, we present three interviews: one with Peter Huessy, Senior Fellow at the Hudson Institute and President of GeoStrategic Analysis; one with Stephan Frühling of the Strategic and Defence Studies Centre at The Australian National University; and another with Tanya Hartman, head of the Russia/Ukraine Section in the Political Affairs and Security Policy Division at NATO Headquarters. The Huessy and Frühling interviews were conducted by David Trachtenberg, Vice President of the National Institute for Public Policy and the Hartman interview was conducted by the Institute's Research Scholar Michaela Dodge. Mr. Huessy discusses the changing strategic nuclear balance between the United States, Russia, and China, and its implications for U.S. security. Professor Frühling addresses the rise of China and what it means for security relationships in the Indo-Pacific region. And Ms. Hartman discusses the implications of Russia's war in Ukraine for NATO's deterrence posture and assurance of allies.

These interviews provide insightful context on some of the critical national security issues of our time. In today's highly dynamic international security environment, they add important perspective to the contemporary debate on the threats to U.S. national security and what actions the United States should take to address these challenges.

An Interview with Peter Huessy, Senior Fellow at the Hudson Institute and President of GeoStrategic Analysis

An Interview with Peter Huessy, Senior Fellow at the Hudson Institute and President of Geo-Strategic Analysis, a defense consulting firm. Mr. Huessy discusses the changing strategic nuclear balance between the United States, Russia, and China, and its implications for U.S. security.

Q. The Biden Administration is facing significant decisions on modernization of the U.S. nuclear deterrent. Its new Nuclear Posture Review has been completed but not yet been publicly released. Some modernization critics called on the administration to eliminate ICBMs, forego the Long-Range Stand Off (LRSO) weapon, and reduce the size of the U.S. nuclear arsenal. While discarding those recommendations, the administration in its Nuclear Posture Review, did support the elimination of the nuclear sea-launched cruise missile (SLCM-N) and the B63 gravity bomb. How do you assess these various proposals?

A. As the leader of U.S. Strategic Command Admiral Richard has argued, the United States needs to deploy a nuclear capable Navy cruise missile and the B-83 gravity bomb particularly to restore the current worsening nuclear balance in medium-range capabilities.



On the strategic front, although not proposed by the administration, there remain strong elements within the global zero community and the administration that seek to eliminate ICBMs and reduce the buy of Columbia-class submarines.

Eliminating ICBMs would be a significant mistake with respect to U.S. strategic capabilities, as scrapping the diversity and insurance element represented by a three-legged Triad would increase risk and weaken deterrence. Cutting the number of submarines would also significantly reduce the number of on-alert deterrent warheads needed to cover key military targets.

There are also three other key factors that call for the deployment of a full-up ICBM force.

First, if the United States has zero ICBMs, the number of U.S. strategic nuclear assets/targets would fall to fewer than a dozen (3 bomber and 2 submarine bases plus some 4-6 submarines at sea on patrol or in transit), vastly simplifying an adversary's targeting plans.

Second, without ICBMs, submarines and bombers would have to be deployed and exercised to a higher tempo than they are designed for, resulting in greater force stress, higher costs, and earlier obsolescence.

Third, ICBMs provide the prompt launch capability (even after an attack has been confirmed) that enables the command authorities to hold at risk an entire range of adversary assets. This is critical to maintaining deterrence.

Fourth, maintaining the New START accountable 1,550 warheads (1,490 long-range missile warheads) with just a dyad of submarines and bombers means the 12 Columbia-class submarines each with 16 missiles would have to be loaded to their maximum potential, giving the United States no hedge or upload capability to deal with new strategic threats from Russia or China.

With respect to the Long-Range Standoff (LRSO) cruise missile, enhanced Chinese access and area denial capabilities mean that we must improve the ability of our bomber force to reach the targets that we need to hold at risk. While the long-range cruise missile—at standoff distance—cannot reach targets that a penetrating bomber can reach, its ability to penetrate air defenses allows the United States to hold at risk time urgent targets, a critical capability without which the U.S. deterrent would suffer significantly.

"Parity" in nuclear forces has long been the *sine qua non* of U.S. security policy and arms control. Unilaterally reducing our nuclear forces to 1,000 warheads, as proposed by some disarmament organizations, would *significantly stress the remaining force operationally*, making sustainment more costly and operations less predictable, undermining U.S. deterrent capability.

Proposals on the table to reduce the U.S. strategic nuclear arsenal irrespective of any arms control agreement seem to ignore the emerging security environment. Such a move could encourage U.S. adversaries to consider nuclear use in those areas where they have a perceived advantage, especially should a conventional conflict turn against them. This is precisely the opposite of what the U.S. deterrent is designed to prevent.

In addition, the United States has a serious extended deterrent responsibility that Russia and China do not have, which further requires the United States to have a multiplicity of

nuclear forces. Some have proposed that the United States reduce its nuclear capability in the face of these new challenges, while strengthening conventional capabilities.

This would be the wrong way to move forward. In particular, if we improve our conventional capability but leave open gaps in the nuclear balance, we give an opening to our adversaries to coerce us at the nuclear level where such nations assume they have a distinct advantage.

After all, arms control can't readily help us on this score. One hundred percent of Chinese and fifty-five percent of Russian nuclear forces remain unbounded by any current arms control agreement. Yet only five percent of U.S. nuclear forces are unfettered, to say nothing of emerging nuclear powers such as North Korea and Iran—both allied with China and Russia.

North Korea is variously determined to have between 12-100 nuclear weapons, with the ability to deliver some number by land-based missiles and perhaps now by sea. And as the Israeli-seized cache of Iranian nuclear material has revealed, Iran had plans in 2003 to build and deploy a limited number of nuclear weapons, the extent of which still remains hidden. Unfortunately, Iran's nuclear ambitions become unbounded even with a "JCPOA nuclear deal," as its provisions would expire circa 2030.

Thus, seeking to trade further U.S. nuclear reductions (under an arms control deal) for continued congressional funding of the long-delayed nuclear modernization program (without which the United States goes out of the nuclear business) puts arms control proponents in the catbird seat. As House Armed Services Committee (HASC) Chairman Adam Smith wisely noted, making U.S. modernization contingent on an arms control deal with Russia or China potentially—albeit indirectly—puts Russia or China in charge of the nuclear portion of our defense program.

Q. Some estimates place the cost of modernizing the U.S. nuclear deterrent at more than a trillion dollars over the next 30 years. Is the value we get from the deterrent capability of nuclear weapons worth the cost of modernizing it?

A. These cost estimates by the Congressional Budget Office (CBO) are unrealistic and inaccurate. The CBO estimates variously include 25-100 percent of the cost of the bomber force, which former DOD official Jim Miller estimates should actually reflect no more than 3 percent of the bomber acquisition cost.

The CBO cost estimates also assume sustainment of the future force will be similar to the cost of legacy systems, although switching to a modular and digital engineering force is expected to reduce sustainment costs significantly.

But most importantly, today nearly two-thirds of the costs of the annual \$44-51 billion spent on nuclear deterrence (including the National Nuclear Security Administration) is spent on sustainment of the current legacy force, while the acquisition of new platforms such as the B-21, the Sentinel ICBM (formerly known as the Ground-Based Strategic Deterrent, the Columbia-class submarine and the D5 and LRSO missiles comes to about \$11.5 billion in the current approved fiscal year 2022 budget.

In fact, the projected combined overall cost of strategic nuclear sustainment and modernization will be only 6.5-7.0 percent of the DOD budget over a 30-year period, with the cost of modernization alone roughly 3.2-3.5 percent of the defense budget. As General Mattis said, "America can afford survival."

Q. The United States and Russia have initiated a new "strategic stability dialogue" to lay the groundwork for possible future arms control agreements. Although this dialogue was suspended after Russia's invasion of Ukraine, arms control advocates suggest that an arms control treaty to follow the New START Treaty is necessary to foster greater stability and to improve the bilateral U.S.-Russia relationship, and that such a treaty should mandate further reductions in nuclear arsenals. Do you agree?

A. This all depends upon what is agreed-upon, how viable is the verification, and how it affects strategic stability. One could define stability as an improved strategic environment where there are fewer incentives over time for the use of nuclear weapons in a crisis or conflict. This is going to be difficult to achieve given widespread Russian rhetorical threats to use exactly such limited nuclear strikes against the United States or NATO allies, or even Ukraine, should Russian military plans be thwarted.

If pursuing arms control, the United States might seek a worldwide ban or significant limit on land-based multiple warhead ICBMs. If adopted, there would be a significant reduction in the coercive value of ICBMs. But another arms control deal with the Russians on strategic nuclear warheads that does not include theater or short-range nuclear weapons or does not include China in any such deal, whether done bilaterally or multilaterally, does not necessarily improve U.S. security or that of our allies.

Certainly, no further reductions in the U.S. force should be agreed to under treaty absent a major change in the transparency of Chinese nuclear forces and a finding by the Congress and the administration that the resultant strategic balance between Russia and China combined on the one hand and the United States on the other is stable and not threatening to U.S. security.

Although Congress now considers nuclear arms control and nuclear modernization to go hand in hand, the formula initiated in the proposals of the Reagan administration and continued by both the Obama and Trump administrations is not necessarily easily repeated.

Although a number of arms groups have pushed for U.S. unilateral reductions to 1,000 warheads, a host of new factors requires a rethinking of what kind of arms control we should pursue. And certainly, in my own view unilateral reductions should be completely off the table.

I think numbers matter.

While the nominal strategic nuclear force deployed by Russia is 1,550 warheads, the special bomber counting rules and the technical ability of Russian systems to carry far more warheads than allowed by the New START agreement gives the Russians a huge upload or hedge capability. On a day-to-day basis, Russia could quickly and easily surge and deploy three or four thousand on-alert strategic warheads.

This surge or break-out capability is compounded by the inadequate verification rules under New START, plus the continued deployment by the Russians of thousands of what are termed “theater” nuclear forces, not now under any arms limits. By contrast, the United States has deployed only some few hundred theater gravity bombs—all in Europe.

A new review of our nuclear posture has now been completed by the Biden administration—a process undertaken by every administration since the end of the Cold War. The current review took place in a strategic landscape complicated by the very robust Chinese build-up of their strategic nuclear forces. China’s arsenal will approach 1,000 deployed strategic nuclear weapons by the end of the current decade or before. China’s arsenal has already doubled in just the past two years according to Admiral Charles Richard, the commander of U.S. Strategic Command.

As other senior defense officials have cautioned, the Chinese modernization effort has grown considerably greater over time. For example, China is now constructing upwards of some 350 new missile silos, each with the ability to hold the 10-warhead long-range Chinese DF-41 ICBM.

All of which raises the question of whether it is a sound strategic decision for the United States to stand still or build-down while the Chinese are building up, especially as the full dimensions of the Chinese nuclear force remain known only to the Chinese.

In short, how can the United States sign a nuclear arms agreement with China or Russia when the Chinese nuclear force structure about which we are negotiating remains hidden?

As Frank Miller and Ambassador Eric Edelman have both recommended, the United States should seriously consider expanding the U.S. strategic nuclear force by acquiring more than the twelve Columbia-class submarines, as well as adding warheads to the Sentinel ICBM deployment beyond the single warhead configuration now planned.

In considering whether to further reduce or expand our nuclear deterrent, there are further considerations that need to be addressed. For example, the United States has extensive “nuclear umbrella” or extended deterrent responsibilities. The U.S. nuclear deterrent guarantee extends to some 30 nations within NATO and also to a myriad of allied nations in the Western Pacific, all of which depend on a highly credible U.S. deterrent. By contrast, China and Russia have none of these responsibilities.

From the U.S. perspective, the success of deterrence depends on nuclear or conventional conflict not breaking out—or remaining conventional in nature without escalation to the nuclear level or being terminated at the lowest level of conflict possible. Arms control should support that strategy.

However, Russia and China, unlike the United States, view nuclear forces as instruments of coercion and blackmail—not in the service of classical deterrence but in the pursuit of aggression, against the Baltic nations or Taiwan, for example.

For the United States, successful conventional deterrence—where the United States wins or deters a conventional conflict—works only if the nuclear deterrent threshold is not broken. But Russia and China, our peer conventional competitors, are nuclear armed. This conventional/nuclear imbalance is considered by many U.S. military leaders as the most important challenge facing the United States in securing credible and continued conventional deterrence.

Q. The Trump Administration attempted to involve China in any future arms control discussions; however, the Chinese government has been consistently reluctant to join any arms control talks. Given the recent discovery of hundreds of new Chinese ICBM silos, should the United States seek to include Chinese nuclear capabilities in any future arms control agreement? What do you believe is China's motivation for building hundreds of new silos?

A. I believe China should be part of any future new arms control agreements but that cannot be done until China is completely transparent with respect to its own nuclear forces. What exactly such an agreement might entail is difficult to predict, but priority should be given to U.S. strategic and conventional modernization and that of our allies irrespective of whether a new arms control deal is on the horizon or under negotiation.

What's the Chinese motivation to build up and in light of such objectives, why would China even consider an arms control deal reversing such modernization?

The "discovered" build-up of China's nuclear forces may reflect a decision to build a first-class and eventual "second to none" coercive (not deterrent-based) nuclear capability motivated by China's pursuit of hegemonic world power. That would of course run counter to the long claimed Chinese government assertion that China's growing power will only result in a "peaceful rise."

If China is in fact seeking a first-class coercive nuclear force, the discovered build-up makes sense. Three hundred fifty silos with 350 missiles, each with a missile such as the DF-41 that can carry 6-10 warheads, gives you a potential arsenal from silo-based missiles alone of some 2,100-3500 warheads, of which 98-99 percent would be on alert.

Compare this to the United States with about 1,000 warheads on alert and the balance of power picture becomes clearer. Here some analysts make the mistake of assuming the U.S. stockpile of strategic weapons—3,800—is somehow "operational" and thus the measure of comparison, when in fact the totality of the current U.S. nuclear arsenal that is operational on a day-to-day basis (but not necessarily on alert) is somewhere around 1,350 warheads.

In short, shouldn't the question be: Is China headed to an on-alert nuclear arsenal some 200-300 percent greater than that of the United States? And if so, what are the implications for U.S. security?

To answer that question adequately, one must also review whether alternative explanations for China's silo building make sense.

First, is the Chinese build-up simply a reasonable reaction to the U.S. nuclear modernization program and supposed U.S.-led nuclear "arms race" now underway or the previous deployment of our national missile defenses in 2004, as some analysts have claimed?

Let us de-construct such claims.

National missile defenses for the United States are comprised of 44 ground-based interceptors intended to deal with rogue state threats such as from North Korea and Iran. It is highly improbable that it took China two decades to figure out U.S. missile defenses required a huge expansion (56 times the number of U.S. interceptors) of China's nuclear weapons.

But critics claim the United States might deploy not 44 but 66 interceptors. Even so, such defenses may complicate a Chinese first strike against the United States but would not negate any Chinese retaliatory capability. Thus, if China is building upwards of 3,500 new ICBM warheads, it is not hard to overcome a very limited U.S. missile defense deployment but could very well be designed as a threatened first or pre-emptive strike capability, to say nothing of being the lead element in a Chinese plan of aggression, such as a military move against Taiwan. This would not be unlike Soviet designs on Ukraine or NATO members in Europe.

What about the charge the United States is starting an arms race by modernizing its own nuclear deterrent and the Chinese are simply following suit or catching up?

The current U.S. nuclear modernization program was agreed to in December 2010, but no new nuclear-armed U.S. missile, submarine or bomber will go into the operational force until 2029. The U.S. strategic arsenal is capped by the New START treaty, which was extended for five years in early 2021. The treaty cannot be described both as controlling U.S. nuclear force size and also consistent with a U.S. led “arms race.”

On the other hand, the Chinese have been fully modernizing for the past decade and are putting new forces in the field regularly. Admiral Richard previously warned they will at least double their nuclear warhead levels within the current decade, but now believes that increase has occurred in just the last two years.

A third explanation for the Chinese build-up has also been put forward by supporters of global zero. They admit the silos are real, but suggest they will be filled with fake decoy missiles, or missiles for which there are no available warheads. One analysis claimed that 90 percent of the new Chinese silos will be filled with fake missiles, with no more than one dozen being real missiles, a claim apparently based on having unique access to Chinese military plans.

Why worry then about only 12 real missiles?

This argument is also easy to de-construct.

China would still have to build roughly 100-150 real missiles for deployment and testing, (30 years of testing at 3-5 missiles a year).

The estimated cost for the United States to build that many missiles plus the significant cost of silo construction, would be \$33 billion, not including warheads or a nuclear command, control, and communications network.

Why would the Chinese pay the equivalent of \$2.75 billion per missile to add just 12 missiles to their current inventory? And at most 120 warheads?

On the other hand, using comparative costs for a U.S. system, building 350 new missiles plus the missiles needed over 30 years for testing and spares would cost the Chinese roughly \$77 billion, which would come to \$140 million per missile/silo (not including warhead, command, control and communications (NC3), and infrastructure costs), but only \$22 million per deployed warhead if each DF-41 missile were fully loaded.

This compares to \$75-225 million for each Sentinel warhead the United States builds, depending on whether the missile is deployed with 1 or 3 warheads.

Why would the Chinese spend tens of billions to build hundreds of missiles, the vast majority of which would be decoys or dummies rather than purchase the full deployment of

350 operational missiles with still a very small portion of their national economy, and acquire the capability to be a world hegemon?

Given its \$14 trillion economy, this new silo-based Chinese nuclear buildup comes to an estimated .0055% of China's GDP or \$1 out of every \$181. By comparison, the United States Sentinel ICBM costs \$1 out of every \$200 of GDP or .005 percent--nearly the same.

Comparing all U.S. nuclear modernization costs of \$450 billion over ten years comes to \$214 million per each of the 1,550-2100 warheads we are allowed under the New START agreement or 3 percent of our annual GDP. The China cost per warhead is \$22 million, hardly too expensive!

Q. Critics of U.S. nuclear modernization plans often assert that other countries nuclear programs are a reaction to U.S. developments and that if the United States foregoes developing new nuclear systems others will follow the U.S. lead and exercise similar restraint. This "action-reaction" narrative and its "inaction-inaction" corollary are not new and are frequently offered up as explanations for adversary behavior. What is your view of this narrative?

A. Former Defense Secretary Harold Brown famously said, "When we build, they build; when we stop, they build." He was referencing the United States and the Soviet Union. A number of studies recently have seriously debunked the "two apes on a treadmill" metaphor used by former arms control official Paul Warnke in his 1979 description of the U.S. and Soviet nuclear modernization efforts. Warnke was clever but wrong.

Recent studies on this subject, in particular by the National Institute for Public Policy, have shown the action-reaction description of the "arms race" is inaccurate. The United States for over thirty years (1997-2029) will not deploy a single new strategic nuclear platform while during that same period the Russians will bring to their force at least 32 new nuclear platform types with 22 being deployed after the 2010 New START agreement.

Q. U.S. missile defense policy has focused on defending the homeland against rogue state missile threats from countries like North Korea and Iran but relying on nuclear deterrence to protect against the more sophisticated nuclear forces of great-power competitors like Russia and China. Given the nuclear weapons programs being undertaken by both Moscow and Beijing, does this policy make sense, or is it time to reassess U.S. missile defense policy?

A. Given that even a robust U.S. missile defense capability could not defend the U.S. homeland 100 percent from all Russian and Chinese retaliatory nuclear strikes, it makes sense to examine how a robust, credible, and effective U.S. missile defense system (that also deals with exotic Russian systems) could significantly reduce the coercive and blackmail threats from ballistic missiles armed with nuclear weapons that are characteristic of Russian and Chinese security strategy.

Part of the American (especially congressional) reluctance to build a U.S. missile defense system aimed at blunting Russian and Chinese nuclear capabilities is an assumption that

Russian and Chinese nuclear forces are for classical deterrent purposes and not primary weapons to support aggression and the use of armed force against countries such as Moldova, Georgia, Ukraine, the Baltics, Taiwan, and Japan.

This is not to say that nuclear weapons are not a legitimate component of a nuclear-armed nation's strategy or do not come into play in geostrategic relations. However, as others have explained in some detail, the use of nuclear weapons in an "escalate to win" or "escalation dominance" strategy supports an approach by China and Russia that sees nuclear weapons as useful tools to be used to implement armed aggression—and not to deter a nation from actually engaging in aggression in the first place.

The United States is trying to prevent aggression. Russia and China seek to secure a *fait accompli* in response to their aggression, where the United States stands down and does not even try and engage to protect our allies. China and Russia are using "deterrent" forces to support aggression while the United States uses its deterrent forces to stop or prevent aggression.

Thus, while claiming the goal of enhancing deterrence is the goal of new nuclear deployments, China and Russia are actually seeking to expand avenues of aggression. And naturally, any U.S. missile defense deployments have the capability to blunt such aggressive designs that the new nuclear capabilities are designed to achieve.

However, the idea of seriously expanding U.S. missile defense capability has not gotten much attention, particularly since the United States decided to limit its deployment of national missile defenses to between 40 and 100 interceptors in Alaska and California.

The United States has also had some modest discussions of how the Aegis cruiser capability largely designed for theater missile defense might be used for defense of the continental United States (CONUS). My own view is that a very robust missile defense is needed for CONUS and our allies, and the 1991 vision laid out by officials of the Bush 41 administration and also endorsed by President Yeltsin in a UN speech have strong merit and should be seriously pursued.

One prominent criticism of missile defense was its potential role in soaking up a ragged retaliatory strike by a nation first attacked with nuclear weapons. "First the shield and then the sword" was the mantra, based on the assumption the United States would strike adversaries first with nuclear weapons and, after eliminating most of their nuclear forces, intercept any remaining small retaliatory force coming back at the United States.

But missile defense cannot be perfect and thus cannot be a substitute for deterrence nor a backstop to allow mass aggression in the first place. Any response with just dozens of nuclear warheads—the minimalist hypothetical response expected—would destroy multiple U.S. cities with millions of resulting casualties, an outcome so destructive of U.S. society that no American President would ever contemplate such a policy.

An Interview with Professor Stephan Frühling, Strategic and Defence Studies Centre, The Australian National University

An Interview with Professor Stephan Frühling of the Strategic and Defence Studies Centre at The Australian National University. Professor Frühling looks at the rise of China and what it means for security relationships in the Indo-Pacific region, as well as the impact of Russia's invasion of Ukraine on extended deterrence and assurance of allies.

Q. What do you believe are the most important deterrence lessons to be learned from Russia's invasion of Ukraine? Has the credibility of U.S. extended deterrence suffered as a result?

A. It is too early to answer this question with confidence. Importantly, whether someone is deterred or reassured is ultimately their decision or judgment. Hence, what will determine the consequences of the current war for future deterrence credibility will stem from the future interpretations that the United States, its allies and adversaries will form about what has happened. And the ultimate outcome of the conflict will likely colour how people will judge the actions of the United States and others before it started.

That said, there are I think four lessons that are becoming apparent already.

The first is that the conflict has reinforced the big difference between being a U.S. ally, and merely a U.S. 'partner'. In practical cooperation and in U.S. declaratory policy, the distinction between the two has become increasingly blurred over the last two decades, as many non-allied nations made significant contributions to U.S. operations in the Middle East, and as Washington has sought to build coalitions to manage security challenges rather than use formal alliance institutions.

Now, however, the difference is on stark display: First, in the clear red line that the United States and its allies have drawn in their determination *not* to become parties to the conflict. Half-way houses such as Sweden's and Finland's association with NATO that was as close as it could get without formal membership now look a lot less appealing than before. In that sense, even if the conflict hasn't increased confidence in U.S. extended deterrence, it has no doubt reinforced the value and importance of it for allies and U.S. partners alike.

Second, insofar as the U.S. warnings to Russia of the calamitous consequences of the planned invasion in late 2021 and early 2022 could be framed as an attempt at deterrence, they have clearly failed. Why that was so will no doubt spur long historical debates and scholarship in coming years and decades. Exploring the parallels and differences with the failure of U.S. warnings to deter Saddam Hussein's invasion of Kuwait in 1990 may provide some intriguing insights into the practical difficulties of deterrence. But in general, this, too, must reinforce the difficulty of extending deterrence to mere partners, where the United

States is reluctant to provide guarantees and U.S. credibility is not supported by many years, if not decades, of institutionalized political-military alliance cooperation.

The second main lesson is perhaps not a lesson on U.S. extended deterrence as such, but nonetheless important for its future credibility insofar as deterrence by its nature seeks to support the status quo. It pertains to the tactical and operational effectiveness of Ukrainian forces in defensive operations. No doubt there is much we are also yet to learn about the role that sharing of timely intelligence by NATO is playing in this. Russia's invasion, especially in its initial phase, was almost comically inept in many regards, and may never recover from its initial flawed assumptions. But even so, the effectiveness that is currently on display of Ukraine's territorial defence forces; of short-range anti-air and anti-tank guided missiles, and of UAV-directed artillery must be of concern to any country contemplating a cross-border invasion. Ultimately (U.S. extended) deterrence rests to a large extent on the credible threat to deny success, and the success of Ukraine's armed forces even without direct U.S. and allied intervention is thus reassuring, and must give not only Russia but also China pause.

Third, as Washington and its European allies develop their responses in terms of political objectives, sanctions and support to Ukraine in the shadow of Russia's nuclear threats, we are probably seeing play out something akin to intra-war deterrence between NATO and Russia. It is clear that real or imagined threats of nuclear war are playing heavily on the minds of some of NATO's leaders. Again, future historians' work on the debates on a possible no-fly zone early in the conflict will make for a fascinating read. But given that Ukraine wasn't an ally in the first place, my sense is that the most significant consequences for allied views (and confidence in U.S. extended deterrence) will not derive from the conflict breaking out in the first place, but from the discussions that must be ongoing now behind closed doors in Brussels and national capitals about managing perceived risks of escalation as NATO countries, individually and collectively, ramp up their support for Ukraine. What lessons they will take away from that experience, time will tell, but there can be little doubt that cabinets across all of Europe (and probably Washington) are now aware of and engaged with nuclear deterrence in practice in a way that is without parallel since the major Cold War crises.

It is far too early to tell what the overall consequences of all of this will be for post-war views of, and allied engagement and interest in, U.S. extended deterrence. We should be alert to the possibility that European and Indo-Pacific allies may come to quite different conclusions: For NATO, it will reinforce the value of the clear and unambiguous line that the alliance draws at its own border and the sanctity of Article V. In that sense, deterrence in Europe has and will remain based on maintaining a clear black-and-white distinction of what is covered by NATO guarantees, and what is not. In contrast, deterrence in the Indo-Pacific is all about managing shades of grey—not just in the ambiguous status of Taiwan as a quasi/non/kind-of ally, but also in regards to questions about U.S. guarantees relating to the Senkakus in case of Japan; the 'grey zone' opened by lack of a forceful response to the sinking of the *Cheonan* and shelling of Yongbyong island in South Korea; and the historical reluctance of both Australia and the United States to commit to each other's support in regional contingencies.

Hence, where Europeans may be reassured by the difference between allies and partners demonstrated by the conflict, Indo-Pacific allies will probably not be. Where Europeans may be reassured by the Western ability to defeat Russia in Ukraine without becoming directly involved in the conflict, Indo-Pacific allies may doubt the same would succeed against China and see an alarming reluctance to act in the face of nuclear threats. If so, such differences will increase the challenges for U.S. alliance management and extended deterrence. At one level, the need to ‘tailor’ deterrence to local circumstances as proposed in the 2018 *Nuclear Posture Review* is almost a statement of the obvious, but at the same time allies will always also draw their own conclusions from U.S. policy elsewhere.

Q. What do you see as the proliferation risks resulting from Russia’s invasion of Ukraine? There seems to be a shift in opinion regarding nuclear weapons in countries like Japan and South Korea. Are countries more likely to seek to acquire nuclear weapons for self-defense?

A. There is certainly an increasing interest in the role of nuclear weapons in managing the challenges faced by South Korea and Japan, which pre-dates the current conflict in Ukraine. U.S. and European concern about nuclear escalation of the current conflict will also do nothing to abate the existing Japanese concerns about stability-instability dynamics creating scope for Chinese expansion and coercion in Northeast Asia. The U.S. position, which was shared by both the Obama and Trump Administrations—that the denuclearization of INDOPACOM that resulted from the 1991 PNI remains appropriate regardless of the dramatic change in the Indo-Pacific balance of forces over the last 30 years—is becoming increasingly untenable.

However, it is a big leap from recognizing the value of (and need for) forward-based nuclear forces for deterrence and reassurance, to U.S. allies developing their own. Here U.S. policy remains the key element; as long as allies would have to choose between a U.S. alliance and sovereign nuclear arsenals, choosing the latter simply doesn’t make sense. Whether that would remain so under a second, and probably less constrained Trump Administration, is however a different question. Given the enormity of the events in Ukraine, and the success of the Biden Administration in maintaining and leading its allies in the crisis, it is not surprising that concerns about U.S. reliability are little heard at the moment. That could change however, even as soon as a Trump-dominated GOP regains control of Congress in November this year.

Q. The Trump Administration’s 2018 *Nuclear Posture Review* proposed modest U.S. supplemental nuclear capabilities to deter adversaries from believing they might have an exploitable nuclear advantage leading to limited nuclear use. This included deployment of low-yield nuclear weapons and support for a nuclear sea-launched cruise missile, which the Biden Administration has reportedly decided to cancel. How do you assess the value of such supplemental options today?

A. The importance of the supplementary capabilities lay in the fact that U.S. policy started to recognize again, for the first time since the Cold War, the need to be prepared for limited nuclear use in a strategic space between conventional conflict under the nuclear shadow on the one hand, and global nuclear war with the implicit loss of escalation control on the other. A lot was left unsaid, insofar as the Trump Administration stopped short of linking these capabilities explicitly to deliberate escalation (despite rejecting a no-first-use posture), and rejected the notion of limited nuclear war. But nonetheless it was a step back from simply considering nuclear use as so 'extremely remote' to make thinking about escalation management redundant, and inching back towards something akin to the Cold War posture of 'flexible response.'

In that sense, while the W76/2 does provide a new combination of attributes for the U.S. arsenal, because the United States continues to maintain B-61s in Europe anyway, their real significance is symbolic of that U.S. shift in thinking about the role of nuclear weapons in escalation management with Russia. And that means that a lot will depend on how the Biden Administration will discuss this challenge in its own, upcoming review. Even if the W76/2 hadn't been introduced in 2018, there is no doubt that in the current situation, articulating the role of U.S. nuclear weapons in managing escalation and intra-crisis or intra-war deterrence would be the key challenge for the new NPR. Getting rid of the W76/2 would have sent completely wrong signals in this regard, but the language of the upcoming NPR will even so receive much closer attention not just from the usual pundits but also allied ministers, prime ministers and chancellors than that in any of its predecessors.

The new nuclear SLCM on the other hand, as a system yet to be developed, was much less symbolically significant, and also obviously more challenging insofar as it would require bringing back nuclear certification of U.S. attack submarines (SSNs). But longer-term, I think it was of far more *practical* significance insofar as deploying it in the Indo-Pacific would have meant bringing back nuclear capabilities into the theatre. An INDOPACOM that regained a nuclear mission would have been a lot more attuned to thinking about escalation than it currently seems to be; while nuclear forward-based forces would provide important strategic coupling and create risks of (inadvertent) escalation for the Chinese. Perhaps for that very reason it was the obvious candidate for the current administration to demonstrate its willingness to make reductions at least to the planned nuclear capabilities. There are of course other options to forward-base nuclear forces in the region, so the practical consequences of the cut could be mitigated. Assuming that the current administration will not bring the B-61 back into INDOPACOM bases, however, the key challenge with regards to Asian allies will be to explain why, in the current circumstances, it has decided that it is possible and prudent to abandon the one program that would have done so. Convincing South Korea or, especially, Japan, that this was the best decision for them, and not just for a United States concerned with escalation of a regional conflict, will in my view be a challenging task.

Q. What lessons do you believe the Chinese leadership is drawing from Russia's military invasion of Ukraine? Do Russia's actions and the West's response increase the

risk of Chinese military action against Taiwan, or has it made Chinese leaders more cautious?

A. I am by no means an expert on China or Chinese defence policy. Insofar as the 1991 Gulf War and 1999 Kosovo War were closely studied by the PLA for lessons on modern conflict and their needs for modernization, one would expect China to also conduct a systematic analysis of the current conflict. This will likely take time, as will filling gaps or making changes to PLA organization, equipment or doctrine that might result. So it would be reasonable to expect that China would be less confident in the short term, but perhaps a more capable opponent in the long term.

Some probable lessons—including the basic difficulty of sustaining close combat in built-up environments at the end of a long amphibious supply chain—will remain formidable. Others—such as the importance of small-unit leadership in the Ukrainian forces—will be more problematic for China than U.S. allies. So I don't think that the consequences of the conflict will be all bad in regards to the stability across the Taiwan Straits, but where the balance will fall will depend on things—such as the ultimate outcome of the conflict and the way in which the West might react to Russian challenges yet to come—that have yet to play out.

A crucial element will be Chinese perception of the role that Russian nuclear threats have played in the conflict, which may well be different from the perceptions held by the United States and its allies. China's rapid expansion of its nuclear forces, as evident by the recently discovered silo fields, indicates that its thinking on the role of nuclear weapons is already evolving in ways that we don't really understand well. My sense is that this uncertainty is now only going to increase as China internalizes the lessons of the Ukraine conflict in ways that won't be obvious to outside observers.

Q. Do you think the Western response to China's military buildup, including Beijing's expansion of its nuclear weapons programs and its building of military bases on islands in the South China Sea, has been adequate to deter a Chinese military assault against Taiwan? What other actions do you think the United States and the West should take to reinforce deterrence in the Pacific region?

A. I think we should be cautious to draw links between U.S. and allied reaction to a clear collective defence contingency, such as an invasion of Taiwan, on the one hand, and Chinese expansion of its nuclear forces—which is deplorable and dangerous for us but neither illegal nor necessarily illegitimate as such—or island-building in the South China Sea that we have already, by labelling it 'grey zone', defined as not being worth fighting over, on the other. Entrapment concerns remain very real amongst U.S. allies in the Indo-Pacific, at least in Australia, and what is arguably missing is a clearer articulation and commitment to what we are actually willing to fight over.

The maritime nature of the Indo-Pacific presents some challenges in this regard compared to the clear NATO land border in Europe, but the principle remains the same. U.S. focus on the South China Sea and styling Freedom of Navigation operations (FONOPS) as

some kind of signal of commitment has, in my view, had the opposite effect as intended, insofar as it seemed that Washington still hadn't come to terms with the realities of the balance of power in the region; the loss of what some in Australia still like to call 'U.S. primacy', and that the challenge facing U.S. allies has become existential rather than about marginal questions.

In that sense, deterrence would be helped if U.S. alliances clearly engaged with the challenges of major war; and linked with each other to reduce the scope for China to contain the geographic scope of a conflict. Both are slowly happening, e.g. through the U.S.-Australia force posture initiative, increased attention to things like munition and fuel stocks and cooperation on long-range strike, or trilateral cooperation. But the pace of adaptation remains painfully slow—at least compared to the transformation in NATO since 2014.

There are almost no clear signals being sent that allies are really coming to grips, politically or militarily, with the costs of immediate deterrence and collective defence. Major exercises, such as Talisman Sabre, are still not reflecting the actual shape of operations that a conflict with China would entail, for example; political-military agreements on major reinforcement and flow of U.S. forces across the Pacific only exist in a most vague outline in the U.S.-Japan Defense Guidelines and not at all in the U.S.-Australia alliance; and little by way of public statements indicates allies' support for—and willingness to bear the political cost of—U.S. nuclear escalation on their behalf. The solution to all of these challenges lies in importing a so-called 'NATO model' to the Indo-Pacific. But it is also hard to see that deterrence at the level of alliances can be strengthened without greater institutionalization of political-military cooperation and demonstrated preparation for major war.

Q. Is it possible for the Western powers, working with Australia, Japan, and other regional actors, to create a collective security mechanism in the Indo-Pacific similar to NATO? What issues would need to be overcome in order to allow such a mechanism to function effectively as a deterrent to aggression in the region?

A. When John Foster Dulles tried to build an Asian NATO in the early 1950s, he quickly realized that Asian and Antipodean nations had neither the shared interests, nor shared geography that made NATO in Europe possible and necessary. Today, at least between Australia and Japan, there is more of a shared sense of threat from China than there existed even 5-10 years ago, when there was a strong sense in Canberra that there was little to be gained from getting dragged into discussions over the Senkakus. But that does not mean that a multilateral alliance akin to NATO is possible or necessary. Not even in NATO does membership remove the members' discretion of whether to agree to an invocation of Article V. NATO institutionalization reflects a need to campaign across borders, for joint command and control, logistics, and interoperability, and to demonstrate political unity for deterrence. While Indo-Pacific allies also need to address some of these issues, they can also do so without a central institution and in ways that more organically build on what already exists in bilateral alliances and trilateral cooperation and reflect the different geographic context of the Indo-Pacific. Hence, in my view it is less important to proceed at a multilateral level,

than for all alliances to beef up their political-military infrastructure in a broadly parallel manner.

Q. How strong is Australia's commitment to the defense of Taiwan? Would Canberra commit military forces to any coalition action to defend Taiwan against a Chinese invasion or attack?

A. My sense is that Australia's commitment is stronger than it has ever been, and that this is largely bi-partisan. Historically, from the negotiation of the ANZUS treaty to the 1994-5 crisis, Australia has been cautious about being dragged into such a conflict. There is still a public debate about whether Australia is legally obliged to support the United States, with legitimate concern about a lack of public debate on what Australia's commitments are and should be. But whereas Australian defence policy and thinking used to draw a neat distinction between Southeast Asia and the South Pacific, which directly mattered to us, and Northeast Asia which was of more indirect importance (and by implication left for the United States to worry about), in recent years China has come to be realized as a systemic challenge that defies such boundaries.

As such, I have little doubt that in case of a Chinese attack on Taiwan to which the United States also responds militarily, Australia would be fighting on the U.S. side. But translating that willingness into a commitment before the fact that would be able to support deterrence is another matter. Here, the challenge is not just the absence of any history in the ANZUS alliance to incorporate deterrence cooperation: The U.S. policy of strategic ambiguity itself is also a major obstacle, insofar as the United States itself doesn't have a clear position that it could ask allies to rally around.

Q. Does China or Russia pose the most serious long-term threat to a stable world order?

A. Given the overall size of Chinese economy and population, there is little doubt that China is long-term the more significant challenger. Despite all the attention on Europe at the moment, the systemic weaknesses laid bare in Russia's strategic decision making and armed forces; its possibly irreplaceable losses of modern equipment that incorporates Western technology; the increase in European defence spending already underway, and NATO's expansion to include Sweden and Finland, will all reinforce this difference once the current conflict is at an end. Indo-Pacific and European allies tend to look at U.S. engagement in either theatre as a zero-sum game, but in this case a strong U.S. engagement that leaves a weakened Russia and stronger NATO will be of great benefit to Indo-Pacific allies as well.

An Interview with Tanya Hartman, Head, Russia/Ukraine Section, Political Affairs and Security Policy Division, NATO Headquarters

An Interview with Ms. Tanya Hartman, Head, Partnership East, Political Affairs and Security Policy Division at NATO Headquarters in Brussels. Ms. Hartman discusses NATO's strategic posture following Russia's invasion of Ukraine and the implications of this war for extended deterrence and assurance.

Q. What are the most important implications of Russia's war in Ukraine for NATO's deterrence posture and for assurance?

A. NATO had been vigilant about Russia's massive military build-up in and around Ukraine throughout last year, and Allies were closely consulting on the issue. We were, therefore, well prepared. We began to increase our readiness, building on the biggest reinforcement of our collective defense in a generation—a decision Allies had taken in response to Russia's illegal and illegitimate annexation of Crimea in 2014.

Following Russia's 24 February invasion of Ukraine, NATO as a whole and Allies individually, have stepped up their military presence in the eastern part of the Alliance. This has been an important message of deterrence towards Russia, to ensure there is no room for misunderstanding or miscalculation. It shows NATO stands ready to protect and defend all Allies and all Allied territory. The increased military presence includes the placement of over 40,000 troops under direct NATO command, hundreds of ships and planes, and the doubling of the number of NATO battlegroups from the Baltic to the Black Sea from four to eight.

At our historical NATO Summit in Madrid, Allied Heads of State and Government decided to significantly strengthen NATO's longer-term posture and set a new baseline for deterrence and defence. This newly enhanced posture will apply across the land, air, maritime, cyber, and space domains. It will also include a new NATO Force Model, which will enable the Alliance to respond to a potential crisis or conflict at greater scale and higher readiness than the current NATO Response Force. More specifically, this will entail strengthening our forward defences, enhancing our battlegroups in the eastern part of the Alliance, up to brigade level, transforming the NATO Response Force, and increasing the number of high readiness forces to well over 300,000. It will also entail boosting our ability to reinforce through more pre-positioned equipment, and stockpiles of military supplies, more forward-deployed capabilities, like air defence, strengthened command and control, and upgraded defence plans, with forces pre-assigned to defend specific Allies. All this significantly increases the readiness and capability on NATO's eastern flank. NATO's enhanced deterrence and defense posture is designed to reassure Allies and to prevent the conflict in Ukraine from spilling over and escalating into a wider war.

All in all, we can say that Vladimir Putin sought to divide the Alliance over Ukraine, but he has achieved the very opposite. NATO is more united than ever, with a stronger, more diverse, and more determined military presence on the eastern flank.

Q. What would NATO like to see as the most appropriate US policy responses?

A. The US response to Russia's invasion of Ukraine has been swift, decisive, and in sync with other Allies. This highlights one of NATO's key purposes—to serve as a forum for consultations among Allies on issues of shared concern. Intelligence and information sharing in the lead up to and during the war has been unprecedented. The decisions taken by the 30 Heads of State and Government at the June Summit in Madrid are a good example of the effectiveness of this consultative process. Across the board, the Alliance has and continues to respond to Russia's war. NATO is doing this through our long-standing distinctive partnership with Ukraine, a fundamental shift in our defence posture, deepening cooperation with partners, and the adoption of a new *Strategic Concept* to guide the work of the Alliance for the next decade. A strong and independent Ukraine is vital for the stability of the Euro-Atlantic area, and the support that the United States has and continues to provide as the Ukrainian people bravely defend their homeland is crucial in this regard.

The US, Canada, and European Allies have been united and steadfast in their commitment to protect Allied territory, and this has been crucial throughout this crisis. The United States and other Allies continue to hold Russia accountable. An important aspect of holding Russia accountable is making clear that the consequences and implications of Russia's war reach far beyond Europe and North America. For example, Russia is responsible for triggering and prolonging the global food crisis by preventing the export of Ukrainian grain, and the consequences of this impacts the entire global community.

Russia's assault on international norms makes the world less safe. The deepening strategic partnership between Russia and China, as well as their mutually reinforcing attempts to undercut the rules-based order, runs counter to our values and interests. The adoption by the UN General Assembly of a resolution in March demanding that Russia immediately end its military operations in Ukraine demonstrates the vital importance of building global networks of defenders of the rules-based international order. In this regard, NATO partnerships that span from the Indo-Pacific to South America also play an essential role. As do partners in our immediate neighborhood. Following the Russian invasion, Finland and Sweden re-evaluated their security environment and decided to seek NATO membership. Finland and Sweden will make strong and important contributions to our Alliance. Our forces are interoperable. They have trained, exercised, and served with us for many years. We share the same values and we face the same challenges in the Baltic Sea, and beyond. Their accession will make them safer, NATO stronger, and the Euro-Atlantic area more secure.

Q. Does Russia's war in Ukraine increase the prospects of Russia attacking a NATO country in the long-term?

A. The Euro-Atlantic area is not at peace, and we cannot discount the possibility of an attack against Allies' sovereignty and territorial integrity. The invasion of Ukraine has demonstrated that Russia does not value or respect the foundations of international peace and security; and it is prepared to use military force against its neighbours. This is the core

tenet of the international system that Russia, as a permanent member of the United Nations Security Council, is entrusted to uphold and which—it's worth noting—it had helped build. As I mentioned, Russia's brutal and unprovoked war against Ukraine has global ramifications. Russia is engaged in a conquest; Moscow is using force to attain political goals. I don't think that anyone can be confident that Russia will stop with Ukraine. Especially since we've already seen Russia use other tools—hybrid, cyber, disinformation, assassinations – in pursuit of its goals, including in Europe. Vigilance and credible deterrence and defence are, therefore, at the forefront of our thinking. NATO's enhanced defensive posture on the eastern flank and new baseline for deterrence and defence, are not only designed to deter and defend, but to change Russia's calculus when it comes to Allied territory.

NATO Secretary General Jens Stoltenberg and Allies have been and continue to be very clear—our determination to defend each other and every inch of Allied territory is iron-clad. This was reiterated in the NATO Summit Declaration and in NATO's new *Strategic Concept*. The Russian Federation is the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area. Yet, NATO does not seek conflict with Russia. We are a defensive Alliance. Our measures remain preventive, proportionate, and non-escalatory.

Q. How will NATO adapt its policy toward Russia in response to Russia's invasion of Ukraine?

A. Our relationship with Russia is now at its lowest point since the Cold War. This is a consequence first and foremost of Moscow's war against Ukraine, but it is also a result of a long-term pattern of hostile and destabilizing actions that Russia has been carrying out across the Euro-Atlantic area, including on Alliance territory, in the past years. Moscow has interfered in Allied democracies, conducted malicious cyber activities and hybrid actions, violated international law, deployed modern dual-capable missiles in Kaliningrad, and built-up a more assertive posture, novel military capabilities, and provocative activities, including near NATO borders.

With its attack on Ukraine, Russia rejected the path of diplomacy and dialogue, which had been offered by NATO and Allies, including the United States bilaterally. Russia instead fundamentally violated international law, including the UN Charter. Moscow's unprovoked and unjustified war against Ukraine is a flagrant rejection of the principles enshrined in the foundational documents of European and global security. The Kremlin's ambition to reconstitute spheres of influence and deny other countries the right to choose their own path has essentially torn up the international rulebook. Russia has also demonstrated that it is not interested in meaningful dialogue and diplomacy. Moscow's suspension of its diplomatic representation to NATO and the closure of the NATO offices in Moscow are just a few of the examples in this regard.

I believe NATO's relationship with Russia has fundamentally changed for the long-term. The unique institutional relationship Russia had with NATO could not continue. The new NATO *Strategic Concept* makes clear that Allies now consider Russia the most significant and direct threat to Euro-Atlantic security. And we cannot consider Russia to be our partner. At

the same time, we do not seek confrontation and pose no threat to Russia. NATO remains willing to keep open channels of communication with Moscow to manage risk, prevent escalation, and increase transparency. We seek stability and predictability—both in the Euro-Atlantic area and between NATO and Russia. Any change in our relationship depends on Russia halting its aggressive behavior and fully complying with international law.

