

Strengthening deterrence Revisiting the nuclear dimension

Ian Anthony

The United States is discussing whether nuclear strategy, doctrine and forces designed in a more benign international environment, where US nuclear forces were preeminent, must be revised. The United States has progressively reduced the role of nuclear weapons in deterrence, but Russia and China have done the opposite. Sweden needs to develop a clearer understanding of how the role of nuclear weapons is changing in order to engage constructively in strengthening deterrence and reducing risks.

BACKGROUND AND RATIONALE

A new urgency has been added to the discussion of deterrence in the United States by significantly revised intelligence estimates of the pace of Chinese nuclear force expansion and the Russian aggression against Ukraine. The large (by European standards) circle of individuals engaged in nuclear matters are raising fundamental questions about the role of nuclear weapons in US defence and challenging some assumptions on which deterrence has rested. This is generating discussion about the concept of deterrence, the contemporary relevance of traditional approaches and the ways and means to strengthen the contribution deterrence can make to security.

At their 2023 Vilnius Summit the leaders of the North Atlantic Treaty Organisation (NATO) pledged to strengthen nuclear planning as the Alliance reassesses the effectiveness of its current deterrence policy to ensure consistency with the new Strategic Concept adopted in 2022.⁽¹⁾ This memo focuses on some of the global and regional dimensions of the discourse around nuclear deterrence and highlights some of the issue areas where important questions have emerged that require attention from Swedish decision-makers.

THE UNITED STATES DISCOURSE ON DETERRENCE

Cold War bipolarity meant deterrence was based on assumptions about how Soviet leaders would assess the costs associated with a particular action relative to expected Western responses. In present conditions a more complex set of questions are in focus. In 2022 the Commander of the US Strategic Command called for

a rewriting of deterrence theory because ‘non-linearity, linkages, chaotic behavior and an inability to predict are all things that do not show up in classic deterrence theory’.⁽²⁾

The basis for deterrence is unchanged: a conditional response is intended to modify the behaviour of a target.

The target must understand which action will trigger a response, which need not be spelled out in detail but must be understood in general terms, and must be proportionate in order to be credible. Even when ‘the punishment fits the crime’ the target must believe that the response will be forthcoming. As former Principal Deputy Assistant Secretary of Defense, Franklin Miller, has pointed out in relation to Russia, ‘the task is not to convince ourselves but to convince Mr. Putin’.⁽³⁾

Integrated and tailored deterrence

The United States is moving away from a ‘one size fits all’ approach to deterrence in which nuclear weapons were the central pillar. Integrated deterrence is an umbrella term that is now frequently heard in the internal US discussion because it features prominently in top-level guidance documents produced by the current Administration, including the National Security Strategy (NSS) and the National Defence Strategy (NDS).

The NSS notes that the US will have to ‘more effectively coordinate, network, and innovate so that any competitor thinking about pressing for advantage in one domain understands that we can respond in many others as well’.⁽⁴⁾ In the most recent NDS integrated deterrence is described as one of the primary ways that the United States will achieve defence of the US homeland,

deterrence of strategic attacks against the United States and its Allies, and partners and prevailing in conflict should deterrence fail.⁽⁵⁾

The word ‘integrated’ is being used in the domestic US discussion in ways that can mean integration within the US military, integration of different parts of the US government or the integration of Allies (either as a group or integration of Allies into US plans). A subsidiary question in this case would be whether the US should (or must) be the primary ‘integrator’ or whether this can be a collective exercise.

It has been pointed out that integrated deterrence is mainly presented as ‘a Department of Defense concept, even though its implementation is not entirely within its scope of responsibilities’.⁽⁶⁾ Although there is no definitive explanation, the term integrated deterrence seems to describe the potential for non-kinetic or non-military tools to play a more significant role alongside more traditional military instruments to threaten an aggressor with unacceptable damage.

Tailored deterrence

The need for so-called ‘tailored deterrence’ has been recognized in influential US documents for two decades. The US Strategic Deterrence Joint Operating Concept of February 2004 noted that ‘because the perceptions and resulting decision calculus of specific adversaries in specific circumstances are fundamentally different, our deterrence efforts must also be tailored in character and emphasis to address those differences’.⁽⁷⁾

Russia and China are placing greater emphasis on the role of nuclear weapons in national defence while resisting calls for restraint, and under any scenario a role for nuclear weapons in deterrence appears inescapable. However, successive iterations of the United States Nuclear Posture Review sought to reduce their role by emphasizing the deterrence potential of non-nuclear forces, particularly accurate long-range conventional weapons that could hold at risk targets previously assigned to nuclear weapons.

Successive Administrations have been unconvinced by the argument to make the ‘sole purpose’ of nuclear weapons retaliation following a nuclear attack on the US or one of its allies. A nuclear response to certain types of non-nuclear attack (such as attacks with conventional or biological weapons that inflict levels of damage comparable to nuclear use) is not excluded.

In the most recent nuclear posture review the current Administration concluded that ‘some Allies and partners are particularly vulnerable to attacks with non-nuclear means that could produce devastating

effects’.⁽⁸⁾ An ally being overwhelmed by an adversary using non-nuclear means would have less confidence in US support if the option to be the first to use nuclear weapons was definitively taken off the table.⁽⁹⁾ However, the credibility of the US commitment to extended nuclear deterrence may be tested by changes in the global disposition of nuclear forces.

In summary, although the United States has made provision for the modernization of all elements of its nuclear forces, an intensive examination of the role of nuclear weapons now and in the future is underway.

GLOBAL NUCLEAR FORCES IN A PERIOD OF CHANGE

The strategic relationship in a US-China-Russia ‘triangle’ is becoming a central driver in the US discourse. Having 2 peers to deal with simultaneously must be thought about across a peacetime, crisis and wartime perspective.

The impact and implications of the “2-peer problem”

Recent studies have taken as a point of departure that a crisis with either China or Russia inevitably impacts the other.⁽¹⁰⁾ In a nuclear crisis with one peer the possibility of opportunistic aggression by the other peer has to be considered for strategic nuclear planning purposes.

Recent public information indicates that China is increasing the size of its nuclear arsenal much more quickly than previously believed. The US Department of Defense believes that China accelerated the nuclear modernization effort in 2021, and that current plans ‘exceed previous modernization attempts in both scale and complexity. ... If China continues the pace of its nuclear expansion, it will likely field a stockpile of about 1500 warheads by its 2035 timeline.’⁽¹¹⁾

Planners are thinking about the force structure needed for the anticipated future Chinese arsenal as a ‘2025 problem’, not something over the horizon, based on the potential size of adversary nuclear arsenals combined with current US strategy based on a counterforce response to nuclear attack. In 2026 the New START agreement that restricts the size of deployed US and Russian strategic nuclear arsenals will expire, and it seems unlikely that any follow-on agreement can be reached. For the first time since 1972 China, Russia and the United States will have no restrictions on the size or composition of nuclear forces.

By uploading warheads onto existing delivery systems non-governmental estimates suggest that Russia could increase the size of its deployed strategic nuclear arsenal from the current level of roughly 1,670 to roughly 2,500 in a short space of time.⁽¹²⁾ Further

increases would mainly depend on Russia's capacity to produce new delivery systems. Combined with the pace of Chinese modernization the principal adversaries of the United States could deploy in excess of 4,000 strategic nuclear weapons by 2035.

The total size of the US strategic nuclear arsenal, including warheads kept in reserve, is estimated to be roughly 3,500 weapons. By uploading warheads previously held in reserve, the United States can also increase the number of strategic nuclear weapons from the roughly 1,670 deployed today. However, the US nuclear weapons complex has been sized to sustain the existing stockpile indefinitely without the need for additional nuclear testing. The complex is being modernized, but the capacity to produce new weapons is not being expanded. Therefore, the future size of the US arsenal is effectively 'capped' while the same may not be true for China and Russia. The United States expert community is currently debating whether new decisions are needed to prepare for the conditions anticipated in the 2030s.

In 2013 President Obama authorized new guidance for the use of nuclear weapons requiring the United States 'to maintain significant counterforce capabilities against potential adversaries. The new guidance does not rely on a "counter-value" or "minimum deterrence" strategy.'⁽¹³⁾ Counterforce targeting plans to destroy the military capabilities of an enemy force while counter-value targeting plans the destruction of military-related targets that contribute to the war effort. Recent analyses have questioned the feasibility of a counterforce strategy given the size of the US arsenal and the way in which potential increases in Chinese and Russian arsenals will multiply military targets.

In their most recent report Lawrence Livermore National Laboratory (LLNL) have laid out three ways to approach the '2-peer' problem:

- No change to nuclear deterrence strategy but an increase in the nuclear arsenal to account for additional adversary weapons.
- Change the strategy from counterforce but maintain the arsenal at its current size.
- Don't change either strategy or force posture but accept more risk in a nuclear crisis.

LLNL recommends the first option, reloading the 'hedge stockpile' as soon as New START expires (with exercises to

demonstrate the capability to do that now) and increasing the capacity of the weapons complex to expand the arsenal. This requires more thinking about what size of arsenal could be needed based on analysis of the next steps in Russian and Chinese force development.

A study by Keir Lieber and Daryl Press suggests a version of the second option. Under current US guidance nuclear plans will 'apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian populations and civilian objects. The United States will not intentionally target civilian populations or civilian objects.'⁽¹⁴⁾ Lieber and Press suggest introducing a counter-value element in US nuclear strategy to make it clear that if US cities are under attack adversary cities will be targeted in reprisal.⁽¹⁵⁾

In the US Congress the LLNL approach has supporters, but the executive branch continues to emphasize stockpile reduction in line with current guidance 'to achieve a credible deterrent, with the lowest possible number of nuclear weapons, consistent with our current and future security requirements and those of our Allies and partners.'⁽¹⁶⁾ The prevailing view in the current Administration is that nuclear weapon modernization will deliver adequate capabilities. There is no intention to increase the nuclear weapon inventory or expand the weapons production complex. Instead the extent to which advanced conventional or non-nuclear strike capabilities or missile defenses can provide an effective response to the 2-peer problem will be explored further.

THE REGIONAL DIMENSION OF DETERRENCE

There has been an emerging concern in Asia and in Europe about the regional implications of the changes in global nuclear forces. If the United States did face twin challenges in Asia and Europe then capabilities that are essential elements of European deterrence and defence might no longer be available when called upon. The number of nuclear gravity bombs available to dual-capable aircraft (DCA) in Europe is small relative to the much larger Russian stockpile. The US has never exercised deployment of DCA in Asia in a crisis (in spite of promises to do it) and Asian countries doubt whether the deployment will ever be made real. Strategic nuclear weapons therefore continue to be an essential element in extended deterrence in Asia and in Europe.

Recent iterations of the regular US strategic nuclear exercise Global Thunder have been less generic in the scenarios they use, and more region-specific to illustrate how US nuclear forces support regional commands. The 2023 iteration of the annual US Global Thunder exercise focused on protecting bomber forces used in

support of allies, and key allied personnel and partners were integrated into the exercise teams. The 2023 NATO Steadfast Noon exercise involved B-52 bombers flown from US bases.

Until 1994 the US maintained a permanent nuclear bomber presence in Europe. Today, under the Agile Combat Employment concept, the United States has begun temporary but extended deployments by Bomber Task Force Europe. US bombers have remained in Europe for periods of several months, demonstrating the ability to maintain and operate them in theatre and allowing for multiple exercises and missions. There is a new pattern of Bomber Task Force activity, recent flights approach close to Russian airspace in sensitive areas such as the High North and the Gulf of Finland. The B-52 bomber fleet includes aircraft that no longer have a nuclear mission, as well as aircraft that are dual-capable. A bomber that was ‘denuclearized’ under New START provisions can undertake Task Force flights, but in some cases the B-52 aircraft involved have been nuclear-capable.⁽¹⁷⁾

Visits to Europe by US submarines armed with strategic nuclear weapons have increased in frequency and they have become more visible in public diplomacy.⁽¹⁸⁾ In one recent visit the Commander of US European Command was present during an SSBN visit where he underlined that ‘strategic deterrence provided by the USS Tennessee reflects the United States’ commitment to the Alliance’.⁽¹⁹⁾ The Trident missile armed with a W76-2 low yield warhead is a US capability tailored to regional threats and available for a European/NATO contingency, but outside the purview of NATO planning.

In Europe Russia is seen as the overriding problem, but the circumstance in which Russia could mount a serious challenge is likely to be when US assets earmarked for European contingencies have been diverted to Asia. While the US is committed to a leadership role that finds ways to manage issues arising in Asia or Europe, the European framing is that Europe is now a secondary US priority. Assuring the credibility of extended deterrence in two theatres at the same time will become more complicated. European allies will probably have to take more of the burden of deterrence, but how that can be brought about is not clear.

Can European states contribute?

The European involvement in an Asian crisis is hardly discussed and a shared understanding on how to act if the unpredictable happens, or expected scenarios unfold faster than expected, has yet to develop. Taiwan is just coming into the European discussion, for example, and the probability of a common response in a near-term

crisis is low. As part of the trans-Atlantic conversation about how to be more sensitive to US needs, it would be valuable to have a precise statement on how Europeans can be helpful.

European states need to think about whether China will need to be deterred in the future. If European assets are in the Indo-Pacific, what if China declares those assets hostile in a crisis/conflict? Do European forces withdraw the assets in response to a threat, and what do European states do if China attacks the assets? The Chinese response to European actions taken in support of the United States is not known, but China appears to be looking more closely at how non-geographical tools (cyber and space) could be used to support the US in an Article 5 contingency.

While thinking about developments in Asia is necessary, the main European contribution is most likely to be relieving the US of some of the burden of deterring Russia. As the United States translates the Nuclear Posture Review into follow-on guidance documents there is scope for further discussions on the regional impact of changes in global nuclear forces, and there are already discussions with Allies that provide the US with valuable information and ideas. Countries in central and eastern Europe are in the forefront among those seeking greater clarity about nuclear deterrence, but the two European nuclear-armed states should play the main role in defining the role nuclear weapons can play under current conditions.

In advance of a meeting of NATO Defence Ministers (and immediately before an annual exercise in which NATO allies train the procedures for operations involving nuclear-capable aircraft), President Emmanuel Macron told reporters that the use of nuclear weapons against Ukraine would not affect the ‘fundamental interests of the nation’—interpreted to be the threshold for France to consider reciprocal use.⁽²⁰⁾ President Macron was criticized in France for being too explicit about the conditions for possible nuclear use, and a few days later he urged that his words should not be dramatized, stated that French vital interests have a European dimension, and therefore the French nuclear forces ‘by their very existence contribute to the security of France and of Europe’.⁽²¹⁾

UK public statements on nuclear weapons have usually emphasized that ambiguity is a useful element in deterrence on the basis that an adversary should not have advance notice of the response to aggression. In the recent reiteration of the Integrated Review (described as a document to ‘refresh’ a review completed less than two years prior), the United Kingdom increased the

level of funding for the modernisation of the UK nuclear defence enterprise and promised to publish a Nuclear Defence Strategy later in 2023.⁽²²⁾ The 2023 Integrated Review retained the prioritisation of European security over commitments elsewhere in the world and the statement that the defence of Allies was part of UK thinking about how nuclear weapons might be used.

France and the United Kingdom have built a significant institutional and legal foundation for nuclear cooperation, and analysts have pointed to a convergence of interest around the importance of bilateral cooperation to European security and to NATO.⁽²³⁾ In spite of challenges arising out of Brexit and the security partnership between Australia, the UK and the US (AUKUS), the most recent British and French strategic reviews both called for a new constructive dialogue. In November 2022 President Macron asserted that Franco-British partnership ‘must be raised to another level’.⁽²⁴⁾

At the 10 March 2023 Franco-British Summit it was agreed, among other things, that the existing Joint Nuclear Commission will be developed as the principal forum for bilateral discussion and the elaboration of common positions, where possible, on nuclear deterrence, non-proliferation, arms control and disarmament issues.⁽²⁵⁾ Building on previous Anglo-French dialogue, even if joint exercises are not possible could aligned exercises demonstrate a capacity for coordination?

Near term discussion of adjustments to French and UK nuclear forces are less likely to be about the size of the inventory and more about assuring penetration of future defences. The time scales involved mean that any new nuclear capability decisions should be taken now in anticipation of the environment 15 years from now. Joint Franco-British development of a stealthy ALCM; a submarine-launched nuclear SLCM or a land-based intermediate-range missile would enhance the European centre of decision-making as a contribution to deterrence.

NATO AND NUCLEAR WEAPONS

Vilnius is the first NATO communiqué that commits to strengthen nuclear planning, an indication of a renewed focus on nuclear issues at the highest level. The discussion among leaders was impacted by Russian nuclear rhetoric and the decision to include Belarus into Russian nuclear operational plans. At a future Summit the NATO leaders must be presented with specific proposals to strengthen nuclear planning, but in the first phase a targeted discussion will include responsible ministers and their staff who would be involved in the Nuclear Planning Group (NPG) and High Level Group (HLG) who would prepare Summit meetings and decisions.

Nuclear plans should fill the space between strategy documents and the coordinated use of capabilities but the scope of strengthened planning seems undetermined. Participation in the nuclear mission is voluntary, and there are a lot of ways in which Allies can contribute. However, implementing NATO’s new regional plans and strengthening nuclear planning should move in parallel, and information about issues like dispersal of DCA should be shared. In an ongoing conversation Allies need to decide what they feel comfortable doing to support the nuclear mission and, since NATO Ambassadors are expected to play a leading role in the discussion, they need to be prepared by capitals.

As noted above, while NATO mainly talks about the DCA component of nuclear response, the United States thinks about national assets that can be available in regional contingencies as part of an overall effort that includes NATO but is not limited to it. The US needs to respect the language in high level documents about engaging allies at all levels. The US has said nuclear weapons are there to defend the Alliance and put in place the necessary agreements, policies, strategy, doctrine and capabilities. However, that should not be taken to mean that in a limited regional scenario the US would be ready to use all weapons at its disposal against Russia. Part of the strengthening of NATO nuclear planning is about how to design effective deterrence policies based on an honest assessment of what nuclear-armed states will and won’t do.

The Vilnius communiqué asserts that the independent strategic nuclear forces of the United Kingdom and France ‘have a deterrent role of their own and contribute significantly to the overall security of the Alliance’. France insists that the ambiguity of French national interest has a security benefit in itself and the arsenal is tailored with the necessary flexibility to accommodate more than one option. However, French nuclear weapons are only committed to national defence. The credibility of France inviting a retaliatory strike on itself in response to nuclear use on the Baltic States would be in question.

Final decisions will rest with the United States, United Kingdom and France, but consistent with past practice those should be informed by guidelines agreed in the NPG and HLG. Historically the NPG produced its own documents, including press releases that described work being undertaken by the group. In the past, joint studies were carried out by nuclear-armed and non-nuclear Allies, including on issues such as the employment of nuclear weapons in defence of NATO, and the results were briefed to the NPG.

It is considered very unlikely that France would return to the NATO planning process or participate in NATO exercises. While a broader discussion format among Allies (i.e. not the NPG) might be useful, at the moment it seems likely that the ‘P3’ Franco-British-US dialogue around nuclear weapons in the context of the war in Ukraine will be built on to seek greater coherence.

The new operational plans developed by NATO will translate into multi-domain tactical plans, with associated exercises and war games involving more complex scenarios and conducted at scale. Higher level decisions taken at Headquarters will have to be compatible with what each layer in the future NATO force can deliver and is willing to commit to, taking account of the diversity among Allies—who might (depending on their size) engage with the overall force at Army, Division or Brigade level. The staff working on the nuclear paragraphs of the Vilnius communiqué apparently had very little insight into the language on regional plans, and participation in NATO nuclear operations is a voluntary action by Allies. In assigning specific forces to specific plans how the modernized F-35/B61 capability will be included is not clear, and achieving coherence between regional plans and nuclear plans is seen as a potential challenge inside NATO structures. The readiness levels called for in the NATO 3-tier (Madrid) force model might also create operational constraints depending on what is needed to fly a NATO nuclear mission.

It remains to be seen how NATO will approach exercises and war games. While US war games push to extreme circumstances to ensure robust responses and reveal real problems, past NATO experience suggests that participants tend to follow a script and games don’t go beyond the first nuclear use. NATO should conduct games involving the interaction of nuclear and conventional operations after first use.

Reluctance to discuss the changing discourse about nuclear weapons among Allies may also be connected to domestic sensitivities around nuclear weapons and the risk of war. A three-fold strategic communication strategy might include tailoring messages to particular countries and target groups alongside dedicated training for mid-career officials and education for a younger generation. However, discussing nuclear weapons in public carries the risk that Russia will use the opportunity for misinformation and disinformation to undermine Western deterrence.

The impact of Russian actions

Russian thinking on the role of nuclear weapons in the near-term is a central question that will shape NATO thinking on nuclear deterrence. However, the degree to which Russian thinking (and how to influence it) is understood is not clear. It could be said that NATO crossed a series of what were considered Russian “red lines” in supporting Ukraine. Russia might not have a clear picture itself of what triggers escalation. The decision framework of the Kremlin is opaque, and the outcome of fighting in Ukraine won’t necessarily inform future Russian approaches to rationality.

Russia put a high priority on avoiding NATO involvement in Ukraine, and nuclear signalling could be said to have worked for that purpose. However, through sustained support NATO has undermined the Russian conviction that Moscow has greater resolve, and nuclear use in Ukraine would risk provoking direct involvement.

Russia has not achieved any of its war aims in spite of nuclear coercive nuclear rhetoric combined with a campaign of conventional missile attacks, and this might lead to changes in Russian thinking on deterrence and on the use of nuclear weapons in conflict. Russia may conclude from the experience in Ukraine that the cost of issuing nuclear threats is increasing as the impact is decreasing. The experience has also demonstrated the limited impact of conventional strike unless carried out at scale. Since ‘Russia’s leaders have demonstrated a propensity to take risk and miscalculate in doing so’, the Ukraine experience might have reinforced the view that coercive nuclear use is the only option available in a conflict with NATO as the Alliance is putting in place plans that will make it a more formidable adversary.⁽²⁶⁾

If Russia increases its reliance on nuclear weapons use in a conflict, assigning a precise probability is not possible. However, given the uncertainties NATO should not take any risks with deterrence, which could mean using ‘worst case’ scenarios as a basis for plans, accepting the attendant risk of an action-reaction spiral. Neither parity nor symmetry in non-strategic weapons between NATO and Russia is likely because Russia has a much larger and more diverse arsenal. While NATO has rationalized its nuclear forces over time, Russia has retained more flexibility (fielding more than 30 different delivery systems). Although quite a large share of dual-capable systems are being used, and they are showing an unexpected vulnerability to air defences, Russia tends to be persistent in investing in adaptation and improvement of systems that have operational problems.

An imbalance in nuclear forces could feed the tendency to see war with nuclear weapons at theatre level as the best and perhaps only option for Russia to prevail against NATO. If Russia assesses that the moment of greatest opportunity to use nuclear weapons in Ukraine was at the outset of fighting this might translate into early first use in a future conflict with the expectation that escalation can be controlled. This would be consistent with ‘Russia’s strategy, the array of nuclear capabilities that enable it, and the robust stability of central deterrence of large-scale Russia-US homeland nuclear strikes’.⁽²⁷⁾

The evidence from the campaign in Ukraine about the robustness of Russian Presidential command and control is not reassuring. How nuclear command, control and communication would perform in wartime conditions is a Russian problem that will outlast Putin given the evidence of high risk taking, limited analytical capacity and miscalculation.

If political leaders are mainly concerned with regime survival then maintaining the loyalty of key groups could also raise worrying questions given the public statements that Russia makes itself look ridiculous by making rhetorical threats that are never followed up. A domestic discussion of the credibility of Russian signals around the use of nuclear weapons was sparked by an article in the summer of 2023.⁽²⁸⁾

Increasing flexibility

The language of the NATO Vilnius communiqué emphasized making choices today that keep options open for the future and generating greater flexibility in nuclear plans, but without going into detail. Greater flexibility could have multiple meanings.

The US nuclear arsenal has been progressively rationalized with the retirement of various delivery platforms, in contrast to the pattern in China and Russia. In the United States a nuclear-armed sea-launched cruise missile may be restored to the arsenal to provide a capability available for regional contingencies in Asia and Europe.⁽²⁹⁾ The SLCM-N was not designed as a NATO capability and it doesn’t depend on NATO decisions.

A different aspect of flexibility might be ensuring that non-nuclear capabilities of the Alliance including long-range conventional missile strikes, cyberattacks and electronic warfare continue to function after nuclear weapons are used.

In the first instance, making better use of capabilities NATO already has is the main focus. There are a small number of certified nuclear-capable air force units

in Europe, a vulnerability that could be exploited. The relatively few bases are not very close to major population centres, and a preemptive nuclear strike would take away the capability in one stroke. Reducing vulnerability might explain work that is being carried out at bomb storage sites in Europe. According to open sources there have been base upgrades at Aviano, Incirlik, and Volkel air bases, and upgrades are underway at Ghedi, Kleine Brogel, and Büchel.⁽³⁰⁾ The US is implementing plans made after 2014 to refurbish nuclear weapon storage facilities at RAF Lakenheath in the United Kingdom.⁽³¹⁾ The base will host US Air Force nuclear-capable F-35 fighter aircraft.

The Vilnius communiqué notes ‘the imperative to ensure the broadest possible participation by Allies concerned in NATO’s nuclear burden-sharing arrangements to demonstrate Alliance unity and resolve’. The participation in NATO nuclear operations is voluntary, and there is a range of possible ways for Allies to engage. The dispersal of DCA to a larger number of sites could take away a temptation to preempt, but that would require agreements on host nation support and investment to ensure that transportation, tracking, accounting and security requirements were met.

The NATO-Russia Founding Act says that NATO has ‘no intention, no plan and no reason to deploy nuclear weapons on the territory of new members’. NATO does not consider the ‘3 no’ commitment as binding today because of the fundamental change in relations with Russia, but resizing the DCA force and modifying the geographical aspect of DCA deployment does not seem to be discussed in NATO at the moment. Critically, the United States does not see any need to store nuclear weapons in Central Europe. New national contributions of dual-capable aircraft has fewer advocates than enhanced DCA survivability and dispersal, but the return of countries that left the nuclear mission (Canada and/or Greece) might be one proposal. There are currently no plans for additional allies to be equipped with dual-capable delivery systems, although the Polish request for more direct involvement in nuclear sharing has put the question on the table.⁽³²⁾

Given the shortfall in other capabilities that are necessary for nuclear missions (such as air-to-air refueling tankers and ISR to facilitate dynamic targeting) there may be other investments that broaden participation. Moreover, there is an identified need to provide resources for other types of shared capabilities to enhance deterrence, such as long-range conventional precision strike weapons.

The Future of Arms Control: Communicating deterrence messages

How can collective Western interests be safeguarded without producing a conflict when shared interests with adversaries are absent for the foreseeable future? The need for so-called ‘tailored deterrence’ was being recognized in influential US documents in the early 2000s. The US Strategic Deterrence Joint Operating Concept of February 2004 noted that ‘because the perceptions and resulting decision calculus of specific adversaries in specific circumstances are fundamentally different, our deterrence efforts must also be tailored in character and emphasis to address those differences’.⁽³³⁾

The United States now tries to take account of the different values, motivation, and degree of resolve in different adversaries. The US Nuclear Posture Review addresses China, Russia, Iran and North Korea separately, for example, but some analysts believe that, in the case of Russia, metrics of regime strength tell us little about a personalist autocracy. Observers have noted that in present conditions there is a need to communicate with adversaries (actual and potential) to uphold the credibility of a deterrent posture.⁽³⁴⁾ However, the frameworks for dialogue with Russia have closed, and efforts to engage China in discussions on nuclear weapons and deterrence have produced only meagre results.

If, as seems to be the case, Russia is actively promoting instability while Beijing sees things differently then strategic communication with China should not follow a “west versus the rest” line of thinking. China’s strategic intentions are not explained in the official material available and China will not engage in discussing them.

The US National Security Adviser recently asserted that the United States is ready for discussions with China and Russia without preconditions ‘to manage nuclear risks and develop a post-2026 arms control framework’.⁽³⁵⁾ The 2023 UK Integrated Review points in the direction of a greater emphasis on communication because ‘a clear understanding of others strategic calculus – and an ability to explain our own – is critical in order to avoid miscalculation.’⁽³⁶⁾ The UK therefore aims to establish regular strategic-level dialogues with both Russia and China to try and ‘build confidence and transparency around security ambitions, vital interests and military doctrines’ but also recognizes that this is not a realistic pathway at the present time. France would also like to have insight and a voice of some kind in any nuclear dialogue with China to ensure that no decisions are taken without considering French interests.

At NATO the unity that is now emerging around nuclear issues has to strengthen deterrence without

being unnecessarily provocative. Strategic messaging should match support for strengthening nuclear planning with a commitment to arms control, emphasizing that strengthening deterrence is a risk reduction measure and exploring how new technologies can be applied in arms control to advantage.

At the same time, the coming discussion of nuclear planning could be disruptive for the diplomatic and arms control paradigm because the central message that there is a ‘pathway to zero’ might not hold. How to explain that change will have to address the widening gap between what allies say in, for example, the NPT context and what is now being said in capitals and at NATO. The commitment to credible deterrence must be made clear, and that should start now in the NPT review cycle, not just before the next RevCon.

Russia will notice a unified message and the main priority now should be to establish a clear picture of what Allies want, not what Russia might accept. Detering attack on NATO is the core objective, and the task of arms control is to establish and communicate around the red lines and guardrails related to nuclear use. Working for a better understanding of escalation dynamics would help to produce lines of action for risk reduction.

FINAL OBSERVATIONS

Decisions at the NATO Summit in Vilnius indicate that Western Allies have recognized a deficit with Russia when it comes to high-level attention to nuclear weapons. NATO has created a process for more focused discussion of nuclear issues with a reporting obligation to senior political leaders.

There is positive momentum on strengthening deterrence and the role of NATO, but momentum comes from a very low base and sustainability is not assured. There is an emphasis on increasing ‘flexibility’ in nuclear planning, but questions surround what kind of flexibility is needed, how to create it and what place nuclear weapons play in a flexible spectrum of options.

How Russian thinking on the role of nuclear weapons develops is a central question that will shape deterrence strategies. The degree to which we understand Russian thinking (and how to influence it) is not clear. President Putin’s public message is that Russia’s nuclear capability remains an area of comparative advantage, and risk reduction includes reducing Russian confidence in the utility of using nuclear weapons alongside positive measures to strengthen the confidence of Allied populations that effective countermeasures are in place.

The United States is promoting discussion of the implications for Europe of global developments and

regional developments in Asia (particularly related to China). The implications of moving from a bipolar nuclear balance to a situation where China, Russia and the United States have broadly comparable nuclear forces still need to be digested, including the impact on

extended deterrence. Similarly, Europeans need to follow the us discussion around multi-domain or integrated deterrence closely to identify and understand any implications for the role of nuclear weapons. ■

Ian Anthony, PhD, is a researcher with the Department for Security Policy at FOI

Endnotes

- 1 Vilnius Summit Communiqué issued by NATO Heads of State and Government participating in the meeting of the North Atlantic Council in Vilnius 11 July 2023.
- 2 Adm. Charles Richard, Commander of U.S. Strategic Command, Opening Remarks at the 2022 Strategic Deterrence Symposium, La Vista, Nebraska, 27 Jul 2022.
- 3 Franklin Miller, ‘Adjusting NATO’s Nuclear Policies: A Five Step Program’, Atlantic Council, 23 March 2016.
- 4 The White House, National Security Strategy, October 2022, p. 22.
- 5 US Department of Defense, Fact Sheet: 2022 National Defense Strategy, March 23, 2022.
- 6 A New Approach to Defending the United States?, Stimson Center, December 21, 2022.
- 7 Strategic Deterrence Joint Operating Concept, Offut Air Force Base, February 2004, p. 21.
- 8 US Department of Defense, The 2022 Nuclear Posture Review, October 27, 2022.
- 9 Franklin C. Miller, ‘Sole Purpose: A Policy Without a Purpose’, Real Clear Defense, September 19, 2020.
- 10 China’s Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy, Lawrence Livermore National Laboratory, Spring 2023; Keir A. Lieber and Daryl G. Press, ‘US Strategy and Force Posture for an Era of Nuclear Tripolarity’, Atlantic Council, April 2023.
- 11 US Department of Defense, Military and Security Developments Involving the People’s Republic of China: A Report to Congress Pursuant to the National Defense Authorization Act for Fiscal Year 2000, 29 November 2022.
- 12 Matt Korda, ‘If Arms Control Collapses, us and Russian Strategic Nuclear Arsenals Could Double In Size’, Federation of American Scientists, 7 February 2023.
- 13 Report on Nuclear Employment Strategy of the United States specified in Section 491 of 10.U.S.C., 12 June, 2013.
- 14 Report on Nuclear Employment Strategy of the United States specified in Section 491 of 10.U.S.C., 12 June, 2013.
- 15 Keir A. Lieber and Daryl G. Press, US Strategy and Force Posture for an Era of Nuclear Tripolarity, Atlantic Council, April 2023.
- 16 Report on Nuclear Employment Strategy of the United States specified in Section 491 of 10.U.S.C., 12 June, 2013.
- 17 ‘USAF’s B-52 Stratofortress bombers participate in Exercise Polar Growl’, Air Force Technology, 15 April 2015; US Strategic Command, ‘Strategic Bombers Participate in POLAR ROAR’, 1 August 2016.
- 18 Joseph Trevithick, ‘Second U.S. Ballistic Missile Submarine Makes Unusual Appearance In Just Two Weeks’, The War Zone, 1 November, 2022; George Allison, ‘Third American nuclear sub visits Scotland in two weeks’, Independent Defence Review, 31 July 2023.
- 19 US European Command, USEUCOM Commander Visits Sub; Highlights Multinational Cooperation, Integrated Deterrence, 18 July 2023.
- 20 Leila Abboud and Henry Foy, ‘Emmanuel Macron criticised for breaking with ‘strategic ambiguity’ on nuclear weapons’, Financial Times, October 13, 2022.
- 21 President Emmanuel Macron, Speech on Defence and Security, Elysée Palace, November 9, 2022.
- 22 Integrated Review Refresh 2023: Responding to a more contested and volatile world, London, March 2023.
- 23 Bruno Tertrais, Entente Nucleaire: Options for UK-French Nuclear Cooperation, BASIC Discussion Paper, June 2012.
- 24 Claire Mills and Louisa Brooke-Holland, UK-French defence cooperation: A decade on from the Lancaster House treaties, UK House of Commons, London, 15 March 2023.
- 25 UK-France Joint Leaders’ Declaration, 10 March 2023.
- 26 Gregory Weaver, ‘The urgent imperative to maintain NATO’s nuclear deterrence’, NATO Review, 29 September 2023.
- 27 Gregory Weaver, ‘The urgent imperative to maintain NATO’s nuclear deterrence’, NATO Review, 29 September 2023.
- 28 Sergei A. Karaganov, ‘A Difficult but Necessary Decision’, Russia in Global Affairs, 13 June 2023.
- 29 Paul Kerr and Mary Beth Nikitin, ‘Nuclear-Armed Sea-Launched Cruise Missile (SLCM-N)’, Congressional Research Service, 16 December, 2022.
- 30 Hans Kristensen and Matt Korda, ‘United States nuclear weapons, 2023’, Federation of American Scientists, 15 January 2023.
- 31 Matt Korda and Hans Kristensen, ‘Increasing Evidence that the US Air Force Nuclear Mission may be Returning to UK Soil’, Federation of American Scientists, 28 August 2023. The US removed nuclear gravity bombs from the United Kingdom in 2008.
- 32 Martin Fornusek, ‘Morawiecki: Poland wants to host NATO nuclear weapons over Belarus threat’, Kyiv Independent, 30 June 2023; John Vandiver, ‘The US should store nuclear weapons in Poland, think tank says’, Stars and Stripes, 5 September 2023.
- 33 Strategic Deterrence Joint Operating Concept, Offut Air Force Base, February 2004, p. 21.
- 34 Richard S. Chersicla, Fighting Words: Communications and Extended Deterrence in the 21st Century, School of Advanced Military Studies US Army Command and General Staff College, Fort Leavenworth, 2019.
- 35 Remarks by National Security Advisor Jake Sullivan for the Arms Control Association (ACA) Annual Forum, 2 June 2023.
- 36 Integrated Review Refresh 2023: Responding to a more contested and volatile world, London, March 2023, p. 43.