

NATO's Nuclear Deterrence: Closing Credibility Gaps

Over the past two years, the European security environment has deteriorated rapidly. Much of the blame for this state of affairs can be pinned on increased Russian belligerence and, most notably, its 2014 invasion of, and ongoing war against, Ukraine. This development is troubling in and of itself, but also for what it might signal about the security of Russia's other neighbours, including NATO members. With a new threat on its doorstep, NATO has responded, including with the "the biggest reinforcement of NATO collective defence" since the end of the Cold War.¹ New measures, such as the Readiness Action Plan (RAP) and the U.S. European Reassurance Initiative (ERI) were necessary enhancements to NATO's conventional forces in order to address the most immediate assurance and deterrence needs.

To date, however, NATO's response has not adequately taken into account the integrality of nuclear weapons to the Ukrainian crisis and to Russia's broader military strategy and doctrine. The crisis demonstrates that, at a time when NATO was consciously trying to de-emphasise nuclear weapons in its security policy, Russia has been increasing its reliance on operational nuclear capabilities. Russia's brandishing of nuclear forces and explicit nuclear threats throughout the crisis have exposed serious cracks in the credibility of NATO's nuclear deterrent, and these are fissures that Moscow may seek to exploit in future confrontations.

If NATO wishes to deter Russian aggression reliably, its deterrence and defence policy must once again contain a serious nuclear component, and Western leaders must begin the difficult task of revisiting NATO nuclear deterrence policies and postures. The NATO Warsaw Summit provides the

¹ "Keynote speech by NATO Secretary General Jens Stoltenberg at the opening of the NATO Transformation Seminar," 25 March 2015, www.nato.int.

ideal opportunity to fill the most critical gaps in NATO's nuclear posture and to initiate the longer process of nuclear adaptation.

The New Nuclear Landscape in Europe

Over the past 25 years, as the West has downplayed nuclear weapons in its security strategy and military doctrine, Russia has moved in the opposition direction, placing greater emphasis on its nuclear forces. Moscow views nuclear weapons as an equaliser that can help to offset NATO's aggregate conventional superiority. Nuclear weapons have also become an integral part of Russia's approach to conflict, which skillfully merges non-military and military, conventional, asymmetrical and nuclear instruments.² Most recently, Russia has employed nuclear threats to influence Western positions on the crises in Ukraine and to some degree in Syria.³

Indeed, President Vladimir Putin's nuclear sabre rattling has arguably exceeded anything that we witnessed during the Cold War, and has taken three forms. First, nearly all of Russia's major military exercises over the past decade have concluded with simulated nuclear strikes on NATO targets.⁴ Many exercises demonstrated the close integration of conventional and nuclear forces. Moreover, Putin himself has personally overseen some major drills by Russia's strategic forces.⁵

Second, Russian nuclear bombers have been engaged in increasingly provocative flights into airspace adjacent to the United States and Northern European NATO members. These flights have occasionally occurred with transponders turned off, endangering civil aviation and nearly causing collisions in several instances.⁶

Third, in recent years and throughout the crisis in Ukraine, Putin and other high-ranking officials have repeatedly issued thinly-veiled nuclear

² D. Adamsky, "Cross-Domain Coercion: The Current Russian Art of Strategy," *Proliferation Papers*, no. 54, November 2015, www.ifri.org; D. Johnson, "Russia's Approach to Conflict—Implications for NATO's Deterrence and Defence," *Research Paper*, no. 111, NATO Defence College, April 2015, www.ndc.nato.int.

³ See, for example, C. Freeman, "Vladimir Putin: Don't Mess with Nuclear-Armed Russia," *Telegraph*, 29 August 2014, www.telegraph.co.uk.

⁴ N. Sokov, "Why Russia calls a limited nuclear strike 'de-escalation'," *Bulletin of the Atomic Scientist*, 13 March 2014, <http://thebulletin.org>.

⁵ A. Nikolsky, "Putin Holds Military Drills to Repel Nuclear Strike," *RT*, 8 May 2014, <http://rt.com>.

⁶ "Russian plane has near-miss with passenger aircraft over Sweden," *The Guardian*, 13 December 2014, www.theguardian.com.

threats. As Putin said in August 2014, “I want to remind you that Russia is one of the leading nuclear powers. . . . It’s best not to mess with us.”⁷ Similarly, in March 2015, Mikhail Vanin, Russian Ambassador to Denmark threatened, “If Denmark joins the American-led missile defense shield . . . then Danish warships will be targets for Russian nuclear missiles.”⁸

The message of these actions is clear: the West must not cross Russia lest things escalate to catastrophic levels.

To support this nuclear-centric strategy, Russia has engaged in a thoroughgoing modernisation of its nuclear forces and the development of new nuclear capabilities.⁹ Given the difficult economic circumstances in Russia, prodigious spending on nuclear forces speaks volumes about Russia’s national priorities. Russia is updating its bomber fleet, which will carry a new, precision-strike, long-range, nuclear-armed cruise missile. A new generation of nuclear submarines is set to enter service, and the vessels are designed to deliver a new, more advanced submarine-launched ballistic missile (SLBM), intended to penetrate enemy missile defences. Moscow is also developing new silo-based and road-mobile ICBMs capable of carrying warheads with multiple independently-targetable re-entry vehicles (MIRVs), also designed to defeat enemy defences. In addition, Russia has tested a new intermediate-range, ground-launched cruise missile (GLCM). This development is of particular concern because it is in violation of Russia’s commitments under the 1987 Intermediate Range Nuclear Forces (INF) Treaty, the only arms control treaty ever to eliminate an entire class of nuclear weapons. In addition, Russia’s RS-26 ballistic missile, although tested at longer ranges, can be operated at intermediate range, providing a technical circumvention of the INF Treaty.

In addition, Russia retains an arsenal of around 2,000 non-strategic nuclear weapons, including the types for battlefield use. This arsenal includes nuclear-armed torpedoes, depth charges, short-range surface-to-surface missiles, air-to-surface missiles and bombs, and surface-to-air missiles for use in air defence. Russia’s growing cruise and ballistic missile capabilities, including those demonstrated in the Syria crisis, indicate that Moscow is

⁷ C. Freeman, *op. cit.*

⁸ J. Isherwood, “Russia warns Denmark its warships could become nuclear targets,” *The Telegraph*, 21 March 2015, www.telegraph.co.uk.

⁹ On Russian nuclear modernisation, see M. Kroenig, “Facing Reality: Getting NATO Ready for a New Cold War,” *Survival: Global Politics and Strategy*, vol. 57, no. 1, 2015, pp. 49–70.

also modernising delivery vehicles for non-strategic weapons, granting the Kremlin a growing variety of nuclear options.¹⁰

Finally, according to a Russian briefing leaked to the press, Russia has also developed a new intercontinental nuclear torpedo, designed “to destroy the important components of the adversary’s economy in a coastal area and inflicting unacceptable damage to a country’s territory by creating areas of wide radioactive contamination that would be unsuitable for military, economic, or other activity for long periods of time.”¹¹ Whether the torpedo has been actually built and the leak was deliberate remains unknown. Still, either Russia has designed a new nuclear capability which is appalling by Western standards, and/or Moscow is blatantly manipulating nuclear fears for political effect.

Russian reliance on nuclear weapons has important implications for NATO security. The most immediate challenge posed by Russia’s nuclear sabre rattling is political. Russia may try to use implicit or explicit nuclear threats in order to shape Western policy in a favourable direction in situations short of crisis. For example, it may attempt to exploit nuclear fears to drive a wedge between NATO members, convincing some of them that it is in their interests to give Russia concessions on issues such as missile defence, NATO enlargement, or a new security architecture in Europe. This strategy would seek to force Western leaders to choose between making concessions to Russian interests or face a return of Cold War nuclear anxieties.

A nuclear back-stop may also give Russia greater confidence in extending its sphere of influence in its neighbourhood. We have already seen that nuclear threats accompanied the Ukraine crisis and are likely to re-emerge if conflict were to escalate. Moreover, they could accompany aggressive actions against other countries between NATO and Russia, such as Moldova, or to support Russia’s claims in the Arctic. In short, nuclear weapons could provide Moscow with a shield under which it can engage in aggression and extend its influence.

Even more dangerous, if Putin were to rerun his playbook of hybrid warfare from Ukraine against a NATO member, or if Russian and U.S. or Turkish forces were to clash in Syria, NATO could find itself in direct

¹⁰ T. Gibbons-Neff, “Pentagon: Some Russian cruise missiles crashed in Iran,” *The Washington Post*, 8 October 2015, www.washingtonpost.com.

¹¹ J. Bender, “Russia may be planning to develop a nuclear submarine drone aimed at ‘inflicting unacceptable damage’,” *Business Insider*, 11 November 2015, www.businessinsider.com.

military confrontation with Russia. In the event of such a conflict, Russia is likely to issue nuclear threats and engage in explicit nuclear brinkmanship in a bid to force NATO capitulation. Thomas Schelling argued that nuclear crises are “competitions in risk taking,” and Putin appears to believe that he is more willing to run the inherent risks of nuclear confrontation than his Western counterparts.¹²

Finally, and potentially most catastrophic, in the event of a losing war with NATO, Russian strategists write about the possibility of limited “de-escalatory” nuclear strikes as a means of shocking NATO into suing for peace on terms favourable to the Kremlin.¹³ Some Western analysts take solace in the fact that Russia’s formal military doctrine stipulates that Russia would only use nuclear weapons if the existence of Russia itself were at risk, but others counter that Putin and his advisers equate their rule with the existence of the state of Russia, and that their hold on power may not endure a losing war with NATO.¹⁴ There is, therefore, a real risk that Russia could employ nuclear weapons in a future conflict with NATO.

Challenges to NATO’s Nuclear Deterrent Exposed by the Ukraine Crisis

Russia’s nuclear sabre rattling during the Ukraine crisis has made headlines and influenced public perceptions in NATO countries. It has led to a re-emergence of Cold War-style questions about nuclear dangers, and sparked new questions about whether and how NATO should respond.

While the Alliance has mostly continued with its standard calendar of nuclear-related exercises, some activities have gone beyond routine. For example, Polish F-16s took part in the annual Steadfast Noon exercises in October 2014, training to play a supporting role in the nuclear mission. Even more visible, was the United States, showcasing the contributions of U.S. strategic forces to NATO’s deterrence posture by conducting strategic bomber exercises alongside NATO allies.

Notwithstanding these steps, the Ukraine crisis has exposed a number of challenges to the effectiveness of NATO’s nuclear policy. Most importantly, it

¹² T. Schelling, *Arms and Influence*, Yale University Press, New Haven, 1966.

¹³ N. Sokov, *op. cit.*

¹⁴ A. Golts, “Russia’s New Military Doctrine All Bark, No Bite,” *Moscow Times*, 12 January 2015, www.themoscowtimes.com.

demonstrated that Alliance members are not prepared for Russia's intensified nuclear operations.¹⁵

The crisis has brought about new doubts concerning the credibility of NATO's nuclear deterrent. These doubts are visible in repeatedly voiced fears that Russia might miscalculate NATO's political will and resolve, and use nuclear brinkmanship for intimidation and coercion or to back-up a fait accompli accomplished through conventional military means. The anxieties that Russia may threaten nuclear de-escalation strikes against Poland and the Baltic States to prevent the arrival of reinforcements in the event of a conflict in NATO's east were popularised by Russian expert Andrei Piontkovsky, but they resonated loudly in the West and were expressed even by high-ranking NATO military officers.¹⁶

Questions have been raised not only about NATO's political will, but also about whether it has the appropriate nuclear capabilities to deter a Russian nuclear attack. There is no doubt that NATO's three Nuclear Weapons States (NWS), Britain, France, and the United States, possess formidable strategic nuclear forces. Many believe that this should provide a sufficient deterrent, and that there is no need to match Russia's nuclear capability warhead for warhead, especially in the case of missiles with a clear war-fighting purpose. NATO's nuclear trio has effective capabilities that should convince Moscow that even a limited "de-escalatory" strike could have catastrophic consequences for Russia, and that no part of Central and Eastern Europe, or any other part of Allied territory, is safe for a Russian-instigated limited nuclear war. Others believe, however, that strategic forces may be overkill for the kind of "de-escalatory" nuclear strikes envisioned by Russia. In their view, Russian leaders might assume that NATO would be self-deterred from conducting a massive or disproportionate nuclear reprisal, and that the best solution for NATO would be to possess a clearer ability to fight a limited nuclear war.

¹⁵ For more on challenges to NATO's nuclear deterrence, see: J. Durkalec, *Nuclear-Backed 'Little Green Men': Nuclear Messaging in the Ukraine Crisis*, PISM Report, July 2015, www.pism.pl, pp. 25–31.

¹⁶ P. Goble, "Putin Believes He Can Win a War with NATO, Piontkovsky Says," *The Interpreter*, 10 August 2014, www.interpretermag.com; "Gen. Petr Pavel warns that NATO and Europe have taken 'embarrassingly ineffective' steps to combat threats," *Prague Post*, 27 May 2015, www.praguepost.com; "Russian tensions could escalate into all-out war, says NATO general," *The Telegraph*, 20 February 2015, www.telegraph.co.uk.

NATO, of course, also retains U.S. B61 gravity bombs in Europe, which can be delivered by U.S. and European dual-capable aircraft (DCA). In contrast to relying on strategic forces of the three NATO NWS, use of non-strategic weapons assigned to NATO would not require forces to be brought in from outside of the theatre, which could potentially widen the scope of the conflict and risk greater levels of nuclear escalation. Moreover, NATO planners have for decades believed that it was important for the Alliance to possess a nuclear capability to closely couple European security to U.S. strategic nuclear forces and to allow non-nuclear allies to share the burden of the NATO nuclear mission. Non-strategic nuclear weapons can also play a unique role in demonstrating the cohesion and resolve of the Alliance as a whole, and not only of the Nuclear Weapon States. According to critics of NATO's existing capabilities, however, the number, operational readiness, and assumptions about how and when DCA may be used, do not stand up to the reality of Russia's increasingly sophisticated air defences and A2/AD capabilities.¹⁷ They argue that, for NATO's deterrent to be credible, officials would need greater confidence in their ability to signal through limited nuclear strikes in the extremely remote circumstances in which a nuclear response is necessary. Moreover, the assurance role of NATO's current nuclear arrangements has also been questioned by those asking why U.S. nuclear weapons are not based closer to the most likely zones of potential conflict in Eastern Europe.¹⁸

The Ukraine crisis has also revealed that NATO may be unprepared or unwilling to send collective nuclear messages. Any nuclear signaling in response to the crisis has been taken, not by NATO as a whole, but by the United States alongside a select group of Allies and partners. This has included, for example, a number of military exercises involving

¹⁷ According to Russia's Defence Minister Sergei Shoigu, NATO has 310 DCA "in various degrees of readiness." "Expanded meeting of Defence Ministry Board," 11 December 2015, <http://en.kremlin.ru>.

¹⁸ See, for example: J. Thomas, "How to Place Military Pressure on Russia," *Wall Street Journal*, 9 March 2014, www.wsj.com; E. Lucas *et al.*, *Central European Security after Crimea: The Case for Strengthening NATO's Eastern Defenses*, Center for European Policy Analysis Report No. 35, 25 March 2014, p. 8, <http://cepa.org>; "Letter to Secretary of Defense Chuck Hagel and Secretary of State John Kerry by Mike Rogers, Chairman, Strategic Forces Subcommittee, Mike Turner, Tactical Land and Forces Subcommittee, Committee of Armed Services, House of Representatives," 22 January 2015, <http://turner.house.gov>.

nuclear-capable B-2 and B-52 bombers in Europe.¹⁹ Limited participation in these exercises, however, reinforces doubts as to whether all NATO leaders would be able to react collectively to nuclear contingencies and share the related risks and responsibilities. Such doubts weaken the credibility of NATO's nuclear deterrent.

There are also concerns about whether NATO has sufficient nuclear crisis management tools to read and react to Russia's nuclear messages. The NATO Allies have, since the Cold War, "eliminated a lot of their institutional ability to receive, interpret, and respond to nuclear messaging from Russia, with huge implications for escalatory and de-escalatory massaging in nuclear crises."²⁰

Last but not least, it is striking that NATO has been slow to publically reveal and criticise Russia's nuclear muscle-flexing. NATO Allies and the Secretary General became more outspoken only in the spring of 2015, nearly one year after the beginning of the crisis. The most open and comprehensive critique, for example, was expressed by Jens Stoltenberg in his speech in Washington, D.C. in May 2015.²¹ This belated reaction prevented the Alliance from demonstrating publically its full displeasure with Russia's aggressive nuclear-related activities, and from creating international pressure on Russia to refrain from provocative nuclear posturing in the future.

NATO's Nuclear Adaptation Menu

NATO's approach to Russia's nuclear sabre rattling has been evolving, and efforts to close some credibility gaps have already begun. Russia's nuclear posturing has led to a revival of political discussions related to NATO's

¹⁹ "Strategic Bombers Deploy to Europe to Train, Exercise Capabilities," U.S. Strategic Command Public Affairs, 3 June 2014, www.stratcom.mil; "Two B-2 Spirit stealth bombers have just arrived in UK for a quite unusual overseas deployment," *The Aviationist*, 8 June 2014, <http://theaviationist.com>; "B-52 Stratofortresses to participate in NATO exercise," U.S. Strategic Command Public Affairs, 17 October 2014, www.stratcom.com; "USSTRATCOM bombers practice key capabilities," Air Force Global Strike Command, 9 June 2015, www.afgsc.af.mil; "POLAR GROWL strengthens Allied interoperability, essential bomber navigation skills," U.S. Strategic Command Public Affairs, 1 April 2015, www.stratcom.mil.

²⁰ "EU Non-Proliferation and Disarmament Conference 2014, 4–5 September 2014, Special Session 10: Deterrence, Non-Proliferation and Disarmament," www.iiss.org.

²¹ "Adapting to a changed security environment," speech by NATO Secretary General Jens Stoltenberg at the Center for Strategic and International Studies (CSIS) in Washington, D.C., 27 May 2015, www.nato.int.

nuclear deterrent. For example, Russia's nuclear doctrine was reportedly a topic of NATO's Nuclear Planning Group discussions in February and October 2015, and the February 2016 defence ministers' meeting. Moreover, NATO has been considering concrete options on how to adapt its policy to deal with Russia's emphasis on nuclear forces.²² Stoltenberg underlined the nuclear component of NATO's deterrence during his speech at the Munich Security Conference in February 2015. It was the first time in many years that a NATO Secretary General referred to a possible role of NATO's nuclear deterrence against Russia's nuclear threats.²³

The NATO Summit in Warsaw provides an important opportunity to reach agreement on any further enhancements to NATO's nuclear deterrence policy at the highest political levels. The challenge posed by Russia's increased nuclear emphasis is multi-dimensional, and NATO's reaction must also, therefore, be comprehensive in nature. NATO should ensure that it has sufficient nuclear software and hardware to meet future nuclear threats. Any changes should be clearly communicated to Russia to avoid tragic miscalculations. NATO must also raise public awareness of these issues, in order to build confidence in NATO's response and to ease the anxieties of recent years. In particular, it should take a number of specific steps.²⁴

First, NATO must refresh its declaratory policy. The regular repetition of NATO's nuclear declaratory policy is important itself. The deterrence message, however, will not be strengthened if the Allies, as in the Wales Summit Declaration, merely repeat paragraphs from the 2010 Strategic Concept and 2012 Deterrence and Defence Posture Review. The new Warsaw Summit Declaration should clearly underline the important role of strategic and non-strategic nuclear weapons for NATO. It should indicate the indispensable role of nuclear forces in deterring nuclear use, including "de-escalatory" nuclear strikes, countering nuclear coercion, and countering any intimidation aimed at paralysing the Alliance into inaction. In addition, NATO Allies should agree a common narrative on the role of U.S. non-strategic nuclear weapons based in Europe. The credibility of NATO's nuclear deterrence is negatively impacted by the perception of a lack of consensus

²² See, for example: "Ambassador Lute's Pre-Ministerial Press Briefing," 9 February 2016, <http://nato.usmission.gov>.

²³ "Speech by NATO Secretary General Jens Stoltenberg at the Munich Security Conference," 13 February 2016, www.nato.int.

²⁴ For a roader overview of some of options of NATO's nuclear adaptation, see also: J. Durkalec, *op. cit.*, pp. 32–38.

on the purpose of these weapons. The Allies should emphasise the weapons' significance to the Alliance and their contribution to burden sharing.

Second, NATO should adjust its nuclear exercise practices. Nuclear scenarios could be injected into crisis-management drills, which would strengthen the ability of NATO's decision-makers to act effectively during crises. This does not mean that, as in case of Russia, NATO should blur the line between conventional and nuclear forces. The strict distinction and threshold between conventional and nuclear should remain clear. The Allies should, however, be ready for contingencies, including nuclear threats, which may for example be designed to deter NATO from providing conventional reinforcements. This modest adjustment should be feasible and, indeed, in October 2015, the U.S. and the UK called for NATO to exercise a "transition up the escalatory ladder" in response to Russia's close integration of conventional and nuclear forces.²⁵

In addition, NATO Allies should prepare in advance non-routine forms of exercises to send a collective nuclear message, such as joint drills of U.S. strategic bombers or Alliance DCAs. These exercises could be conducted as circumstances require, and should be non-escalatory in nature, but highly-visible and inclusive enough to signal clear Alliance cohesion. Overall, NATO's routine exercises should be designed in a way that ensures that all elements of its nuclear deterrent, and in particular the DCAs, are robust and operationally effective.

Third, Alliance leaders should recognise the necessity of, and allocate appropriate resources for, improving intelligence and analytical skills, in order to be able to receive, interpret and design appropriate responses to, Russia's nuclear messages. Strengthening NATO's ability to act during a crisis will reduce the risk of inadvertent escalation that could result from misreading Russian messages or responding inappropriately. Past security breaches may make individual Allies hesitant to share some of their national intelligence information with others, but these obstacles must be overcome.²⁶

Fourth, NATO's nuclear communication strategy should be adapted. NATO leaders should routinely inform their publics about the most provocative forms of Russia's nuclear related behaviour. Only by raising

²⁵ K. Reif, "NATO Weighs Nuclear Exercises, Arms Control Today," November 2015, www.armscontrol.org.

²⁶ G. Roberts, "NATO's Nuclear Posture: 'It's déjà vu all over again!'," 20 November 2015, European Leadership Network, www.europeanleadershipnetwork.org.

public awareness can NATO increase international pressure on Russia and provide a clear signal that its nuclear posturing is unacceptable. The May 2015 NATO Secretary General's speech and the 2015 Secretary General's Annual Report represent valuable steps in this direction.²⁷ These measures could also be supplemented with regular and detailed NATO updates about Russia's nuclear messaging. Similarly, it is in the interests of NATO members to call attention to Russia's provocative words and deeds in front of nuclear arms control and disarmament groups, and the wider international community. By putting Russia's nuclear policy in sharp relief in various international fora, the Allies can demonstrate that the true obstacle to reducing the role of nuclear weapons in Europe is not NATO, but Russia.

NATO should also consider more transparency about its own activities and thinking on nuclear matters, by regularly communicating to the public and outside world. It could consider a return to issuing official communiqués after the annual meetings of the Nuclear Planning Group. It can also be more transparent about its regular nuclear exercises. This would strengthen assurance, raise public awareness, and also boost the Alliance's credibility by providing information on Russia's far more provocative nuclear behaviour as a point of reference. NATO should communicate that current nuclear posture and any future upgrade will not mirror Russia's reckless approach. The Alliance should make it clear that, in contrast to Russia, it does not: use nuclear weapons as a tool to revise the international territorial *status quo*, simulate nuclear use against other countries for purposes of intimidation, closely integrate conventional and nuclear forces or otherwise lower the nuclear threshold, and does not develop systems tailored to conduct surprise nuclear attacks, such as nuclear-capable, short-range ballistic missiles. If NATO fails to take these steps, there is a danger that Russia will succeed in its efforts to persuade Western publics that there is a moral equivalence between Russian and NATO nuclear policies.

Finally, at the Warsaw Summit, NATO members must ensure that the Alliance has sufficient and effective capabilities to perform the collective nuclear mission. DCAs must be in sufficient number and at adequate levels of readiness, and have appropriate non-nuclear support. Changes to these forces may not be necessary, but unless they are widely perceived as being effective, a stronger narrative alone will neither impress Russia, nor assure NATO Allies.

²⁷ *The Secretary General's Annual Report 2015*, 28 January 2016, p. 19, www.nato.int.

At the same time, NATO allies should consider other nuclear adaptation measures, which may go beyond the Warsaw Summit. Heads of states and governments should task the North Atlantic Council to undertake a new Deterrence and Defence Posture Review. The document from 2012 is now outdated and has been overtaken by events. The new DDPDR should seriously consider options for the long-term adaptation of NATO's overall mix of capabilities. In so doing, it must take into account Russia's current and prospective military capabilities, including its nuclear forces. NATO allies should carefully study different options including strengthening current nuclear posture, developing a nuclear air-to-surface cruise missile that could be delivered by NATO DCAs, changing the forward basing locations of B61s and DCA arrangements, bringing back a U.S. nuclear SLCM, rotationally basing U.S. B52s in Europe, and other possible measures. The Alliance should carefully study different options, and balance them against each other and the *status quo*. Such a study should weigh the panoply of relevant factors, including ability to penetrate further developments in Russian air defence and A2/AD in the foreseeable future, tailored or adjustable yields, survivability, economic cost, timeline to deployment, coupling, burden sharing, NATO disarmament and arms control aspirations, and divisiveness within the Alliance. In the end, enhancements that go beyond the B-61 life extension programme and modernising DCA delivery with the F-35 may not be necessary, but this decision should be made only after careful analysis, not by assumption, or out of a desire to avoid difficult conversations within the Alliance. The result of the process, regardless of the final outcome, would strengthen overall cohesion and NATO self-confidence. The results of the review could be announced at the next NATO Summit in 2018.

The new DDPDR should be coordinated with the work of the United States on its new Nuclear Posture Review, which is likely to be undertaken by the next U.S. administration. As in the case of the 2012 DDPDR, some of the assumptions on which the 2010 NPR was based are no longer valid. The new DDPDR should also take into account the UK's decision about the Trident replacement, and any changes in France's nuclear posture.

In sum, the Warsaw Summit should begin a process of reviving NATO's nuclear culture at the broadest levels. Since 1991, NATO has suffered a decline in deterrence expertise, education, and training. Understanding and thinking about nuclear deterrence, its importance, and its practical

implementation, has waned.²⁸ The nuclear mission has been marginalised to a considerable extent within NATO's bureaucratic structure by organisational changes in NATO's Nuclear Policy Directorate, and in the Supreme Allied Powers Europe (SHAPE).²⁹ In the recent past, attention to NATO nuclear issues has been devoted almost exclusively to ways of further reducing the role and number of non-strategic nuclear weapons in Europe. Nuclear arms control remains an important instrument for advancing NATO security, and what was desirable when Russia was thought to be a prospective partner may be even more desirable now that Russia presents a clear security challenge. Given recent developments, however, NATO's approach must be built on the premise that a renewed understanding of and faith in Allied deterrence is a prerequisite for successful arms control. In the end, NATO's political leaders must realign their priorities and recognise that NATO's most important nuclear mission is deterring nuclear attacks, nuclear crises, and attempts at nuclear blackmail and coercion.

Conclusions

Given the real sensitivities that many NATO Allies have with regard to policies touching on nuclear weapons, any upgrades to NATO's nuclear deterrent will make for a steep uphill battle. Indeed, all of the options presented above will be controversial within the halls of NATO to varying degrees. Undoubtedly, what some Allies will perceive as necessary and responsible measures for strengthening deterrence, others will see as reckless recipes for stoking nuclear tensions in Europe.

What makes these internal NATO deliberations even more delicate is that, on one hand, signals of a lack of NATO cohesion could further undermine the credibility of its nuclear deterrent. On the other hand, inaction in the face of the Russian threat, brought about by fears of Alliance dissent, could be equally damaging, leading to further erosion of NATO as a nuclear Alliance. If Russian nuclear belligerence cannot encourage NATO to cultivate anew a serious nuclear deterrence policy, then what can?

²⁸ M. Rühle, "The Comeback of Nuclear Deterrence," *Berlin Policy Journal*, 19 January 2016, <http://berlinpolicyjournal.com>.

²⁹ J.A. Larsen, "US Extended Deterrence and Europe: Time to Consider Alternative Structures," in: S. von Hlatky, A. Wenger (eds.), *The Future of Extended Deterrence: The United States, NATO, and Beyond*, Georgetown University Press, Washington, 2015, p. 51.

Foreign policy often presents difficult choices and serious tradeoffs, and the future of NATO's nuclear deterrence policy is no different. As Brad Roberts, former U.S. Deputy Assistant Secretary of Defense for Nuclear and Missile Defense Policy, wisely observes: "The advocates of rapid adjustments to NATO's deterrence and defence posture must be mindful of the need to not pursue so divisive an agenda as to cripple the Alliance's ability to act and thus to hand Russia a major military prize. The advocates of a go-slow approach must be mindful of the fact that Russia is very far along in adapting its own deterrence and defense strategy."³⁰

The challenge for NATO at the upcoming Warsaw Summit will be to find a balanced approach that maintains Alliance cohesion while simultaneously closing the credibility gaps in NATO's nuclear deterrent. Finding the right balance will be tricky, but, given the stakes involved, we cannot afford to get it wrong.

³⁰ B. Roberts, *The Case for U.S. Nuclear Weapons in the 21st Century*, Stanford University Press, Stanford, 2015, p. 195.