About the Nuclear Crisis Group

In response to the rise of geopolitical tensions involving nuclear-armed states and their allies, Global Zero launched the Nuclear Crisis Group (NCG)—an international group of esteemed former senior-level military officials, diplomats, and national security experts—to provide analysis and develop steps nuclear-armed countries can take to reduce the risk of conflict and possible escalation to nuclear weapons use. It operates by broadcasting objective assessments of nuclear dangers that risk being ignored, misunderstood, or mismanaged with a strategic focus on four nuclear flashpoints: (1) U.S./NATO-Russia; (2) India-Pakistan; (3) the Korean Peninsula; and (4) U.S.-China. NCG continues to identify concepts and proposals that can reduce the risks of nuclear use and the incidents that exacerbate them, and encourage authorities within nuclear-armed countries to pursue risk reduction and lay the groundwork for the longer-term goal of eliminating nuclear weapons worldwide.
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Lieutenant General (ret.) Evgeny Buzhinsky began his service in the Russian Armed Forces in 1968. He graduated from the Military Institute of Foreign Languages at the M.V. Frunze Military Academy. From 1976-1992, he served in different positions in the General Staff of the USSR and the Russian Federation. From 1992 to 2002, he served in various roles, including Senior Officer, Deputy Head of Direction, Head of Direction, Deputy Head of Department, and Head of the International Treaties Department of the Russian Ministry of Defense. He was promoted to the rank of Major-General in 2000, and to the rank of Lieutenant General in 2003. In 2002, he was appointed Head of the International Treaties Department and Deputy Head of the Main Directorate of International Military Cooperation of the Russian Ministry of Defense. He retired from active duty in 2009. From 2009-2017 he was a PIR Center consultant, then its senior vice president. He has served as PIR Center’s Chairman of the Executive Board since 2014. Since 2016, he has held the position of associate professor and Head of Center for Applied Political-Military Research at the School of World Politics at Moscow State University. He was the deputy CEO of “Vega Radio Engineering Corporation” from 2009 to 2018. He is currently the vice president of the Russian International Affairs Council (RIAC). He possesses expertise in arms control, political and military aspects of international security, non-proliferation of weapons of mass destruction, military use of the outer space, and Russia-NATO, Russia-U.S., and Russia-China relations.

The Honorable Madelyn R. Creedon has had a long career in U.S. government ser-
vice, most recently as Principal Deputy Administrator of the National Nuclear Security Administration (NNSA) within the Department of Energy, a position she held from 2014 to 2017. She served in the Pentagon as Assistant Secretary of Defense for Global Strategic Affairs from 2011 to 2014, overseeing policy development in the areas of missile defense, nuclear security, cybersecurity, and space. She served as counsel for the U.S. Senate Committee on Armed Services for many years, beginning in 1990; assignments and focus areas included the Subcommittee on Strategic Forces as well as threat reduction and nuclear nonproliferation. During that time, she also served as Deputy Administrator for Defense Programs at the NNSA, Associate Deputy Secretary of Energy, and General Counsel for the Defense Base Closure and Realignment Commission. She started her career as a trial attorney at the Department of Energy.

Following retirement from federal service in 2017, Creedon established Green Marble Group, LLC, a consulting company and currently serves on a number of advisory boards related to national security. She is also a research professor at the George Washington University Elliott School of International Affairs and a non-resident senior fellow at The Brookings Institution. She holds a J.D. from St. Louis University School of Law, and a B.A. from the University of Evansville.

**Rear Admiral (ret.) John Gower, CB OBE** is a Senior Advisor with the Council on Strategic Risks. He served, until his retirement in December 2014, as Assistant Chief of Defence Staff (Nuclear & Chemical, Biological) in the U.K. Ministry of Defence. Previously, he had spent nearly half his 36-year military career at sea in ships and submarines culminating in the sequential command of two globally-deployed submarines, the first being the most advanced and last diesel submarine in the Royal Navy (HMS UNICORN) and the second a Trafalgar-class SSN (HMS TRAFALGAR). He then spent seventeen years ashore, mostly in the Ministry of Defence in London, increasingly specializing in U.K. nuclear weapon and counter-CBRN policy but also with time in Washington, D.C. as the Assistant Naval Attaché and twice on the staff of the U.K. Defence Academy. He had a key leadership role in the U.K. contribution to the international activity between 2011 and 2014 to counter the threat of Syria’s chemical weapons program, culminating in the successful removal and destruction of Assad’s U.N.-declared stocks. With very close ties to his U.S. and French counterparts, he represented the U.K. in senior relevant NATO committees for the last six years of his career.

Gower works now as a non-profit consultant, advocating broadly for continued actions from the nuclear-armed states to reduce their reliance on nuclear weapons, and to seek pragmatic yet innovative ways to make progress in pursuit of their obligations under the Nuclear Non-Proliferation Treaty. He has been a speaker and contributor in related events across the world, most recently in Europe, South and South-East Asia, and the United States, and is a consulting member of the International Institute for Strategic Studies.

**Łukasz Kulesa** is Deputy Head of Research at the Warsaw-based Polish Institute of International Affairs (PISM). His research interests include nuclear and conventional deterrence and arms control, NATO, Russian security policy, WMD non-proliferation, and security aspects of the transatlantic relationship.
Kulesa has authored or co-authored a number of analyses in Polish and English, including *Dilemmas of Arms Control: Meeting the Interests of NATO’s North-Eastern Flank* (ICDS, 2020), *The Future of Deterrence: Effectiveness and Limitations of Conventional and Nuclear Postures* (Carnegie, 2019); *Towards a more stable NATO-Russia relationship* (ELN, 2019); and *The Future of Conventional Arms Control in Europe* (IISS Survival, 2018).

Between 2014 and 2019, Kulesa worked as Research Director at the European Leadership Network (ELN). From 2010–2012 he was Deputy Director of the Strategic Analyses Department at the National Security Bureau, a body providing support to the President of Poland in executing his security and defense prerogatives.

**Dr. Dmitri Trenin** is the director of the Carnegie Moscow Center. He also chairs the Center’s research council and the Foreign and Security Policy Program.

He retired from the Russian Army in 1993. From 1993–1997, Trenin held a post as a senior research fellow at the Institute of Europe in Moscow. In 1993, he was a senior research fellow at the NATO Defense College in Rome.

He served in the Soviet and Russian armed forces from 1972 to 1993, including experience working as a liaison officer in the external relations branch of the Group of Soviet Forces (stationed in Potsdam) and as a staff member of the delegation to the U.S.-Soviet nuclear arms talks in Geneva from 1985 to 1991. He also taught at the War Studies Department of the Military Institute from 1986 to 1993.
The United States and Russia have lived with the near constant danger of a nuclear crisis for almost 70 years. The fact that nuclear weapons have not been used in warfare between the two states gives some hope that this is an enduring state of affairs. However, while it is clear that the risk of deliberate war between the two states has ebbed and flowed over time, the reality remains that an unintended crisis, conflict, or mistake could lead to a rapid military escalation and a spasmodic use of nuclear weapons at almost any time. Despite the work of professionals in both countries to protect against the unauthorized use of nuclear weapons, the risk remains dangerously high that a systemic failure or a misunderstanding could precipitate a deliberate decision to use nuclear weapons, with devastating and completely unpredictable consequences.

Recognition of these nuclear risks led the United States to propose high-level and sustained strategic stability talks with Moscow in 2016 under the previous U.S. president, and such talks have taken place on an ad hoc basis under the current U.S. administration. However, these talks have not been sustained. This missed opportunity casts doubt on the idea that both governments appreciate the risks of miscalculation, feel the urgency to improve communication and predictability at the highest levels of civilian and military control, or understand the importance of further developing the tools needed to de-escalate a sudden crisis.

No one would argue that talks alone will resolve the deep-seated concerns and differences of strategic perspective and security between the two countries. However, as the two states with the largest nuclear forces, with thousands of weapons that can be launched within minutes, there is a pressing need for the national security establishments of both countries—civilian and military, governmental and non-governmental—to re-establish some of the nuclear guardrails that helped prevent the use of nuclear weapons over the last 50+ years. This need is especially great now, as it is increasingly clear that the two countries likely no longer have the same desired end state or agree on what conditions are needed to preserve some semblance of strategic stability. Instead of relying on the inevitability of mutual destruction, the two countries have increasingly sought to rely on operationalizing the credibility of nuclear threats at a lower level of conflict to
enhance their security. A lack of trust, increasingly close interactions between land, air and sea forces, and third-party actions near and far that could influence possible threat scenarios all mean that all reasonable precautions need to be taken against miscalculation and accidental crisis escalation.

The present state of affairs is unnecessarily dangerous. There are a wide number of steps both countries could take together—or that each country could take independent of the other—that would reduce nuclear risks. As Europe is likely to be equally if not even more directly affected in a crisis or conflict, European states also have options for reducing the risks of conflict and escalation. To enhance the set of options available to policy makers in Europe, Russia, and the United States, the Nuclear Crisis Group (NCG) has commissioned this collection of essays with the goal of increasing the attention to these risks and providing a broad array of options for policymakers and analysts to consider and potentially pursue now and over the coming months.

One item intentionally not included in the essays is the pressing and clear option of extending the New START nuclear arms control agreement between Moscow and Washington. No one who thinks clearly about the nuclear realities of today believes that the security of either country or the world will be improved if the two largest nuclear arsenals are left unconstrained, and if Washington and Moscow lose the ability to share the access and information with each other that allows them to have confidence in the size and composition of each others’ nuclear arsenal. Both countries remain in full compliance with New START and it remains additive to both U.S. and Russian security. Both sides will be in a worse security situation if the treaty’s constraints and inspection and transparency procedures disappear.

New START will expire on February 5, 2021 unless extended by mutual agreement. It remains doubtful that the current U.S. administration will extend the agreement; its fate remains uncertain. Extension of New START is as close to a “no-brainer” as exists in the world of nuclear stability. It improves the security of all countries, prevents both Russia and the United States from adopting purely worst case analyses of the other, and provides some modicum of predictability in a broader relationship where that is in increasingly short supply.

For insight into the options for enhancing nuclear stability and reducing nuclear risks, the NCG gathered a remarkable set of perspectives, including experts with experience in civilian and military positions, executive and legislative branches, and people steeped in both traditional and emerging fields of transparency and information sharing. The essays both provide a set of ideas
with short-term potential for implementation, and demonstrate the wide range of options for enhancing security. What is lacking at the highest levels of government in all nuclear-armed states is both the recognition of current risks and the will to take action to reduce those dangers.
Reducing Tension in Russia-NATO Relations: A Two-Part Act

Sarah Bidgood

The deepening crisis in U.S.-Russia relations has been a growing source of international concern in recent years—and for good reason. For decades, the two largest nuclear weapon states worked together closely to mitigate a host of shared threats, even at some of the most challenging moments in the Cold War. Today, however, their joint efforts on nonproliferation have ground to a halt, nuclear arms-control agreements are collapsing, and Washington and Moscow are embarking on a new, more dangerous arms race. Experts and practitioners now caution that the risk of nuclear use—particularly as a result of miscalculation or miscommunication—is the highest it has been at any moment since World War II.¹

At the same time, however, the international community is also witnessing mounting tensions in NATO-Russia relations—and their demonstrated potential to escalate cannot be ignored. An especially vivid illustration of how this might play out occurred in 2018, when Russia detained three Ukrainian vessels as they attempted to pass through the Kerch Strait. While this particular episode did not erupt in the ways many observers feared, other future incidents may not be resolved so peacefully. Preventing escalation will require more robust and effective mechanisms to manage crises—not just between the United States and Russia, but also between Russia and NATO.

Given the long list of difficulties now plaguing Russia-NATO relations, identifying and implementing new or enhanced mechanisms to prevent or resolve crises presents a serious challenge. A major barrier is the fact that NATO suspended essentially all practical and military cooperation with Russia after Moscow annexed Crimea in 2014. However, this gap makes it all the more imperative to find ways to reduce the potential for conflict between Russia and NATO by addressing the most likely pathways for escalation. The following two proposals could offer a starting point that aligns with NATO’s dual-track approach to engaging with Russia today.

First, the NATO-Russia Council (NRC)—which continues to meet periodically at the ambassadorial level—should conduct a parallel threat and risk assessment exercise to identify likely scenarios leading to conflict, whether deliberate or accidental. This exercise would ask each member to com-
pile their own ranked list of the most significant threats they see to European and international security. It would also ask them to identify the behaviors or developments they perceive as entailing the greatest risk of escalation and, specifically, escalation to nuclear use. NRC members would then compare their answers to see where they overlap and diverge, providing a potential road map for further discussions.

A parallel threat assessment exercise would serve two purposes. First, it would highlight the most dangerous pathways for escalation where Russia and NATO could usefully develop crisis-stability mechanisms. Identifying shared threats was an early step in U.S.-Soviet collaboration on nuclear issues at times when the two countries saw eye-to-eye on little else. This history suggests that, unless Russia and NATO have a clear understanding of where these shared threats lie, it will be difficult to identify practicable steps to mitigate them today.2

Second, it would increase the likelihood that Russia and NATO will be able to signal effectively to one another as part of their respective deterrence strategies. Research on strategic bargaining shows that signals are more likely to be misinterpreted—or to elicit the very behavior they were intended to prevent—when the fears and vulnerabilities of their intended target are not clear.3 Given the potential for escalation between the United States, Russia, and NATO, any measures that can reduce the likelihood of misinterpretation or miscalculation should be exploited. This recommendation draws from important frameworks developed by Dr. Kristin Ven Bruusgaard, currently a postdoctoral fellow at the University of Oslo, for auditing deterrence approaches and ensuring that they are working.4

The second, related proposal is that the NRC establish a stand-alone task force of former officials and non-governmental experts from Russia and NATO countries to generate recommendations based on the outcomes of the exercise outlined above.5 The task force would be asked to produce ideas to address the specific risks and threats identified by the NRC.6 For instance, it could examine existing Russia-NATO risk-reduction measures and evaluate whether they are sufficient to maintain stability in the kinds of crises that might arise—or whether they need to be expanded or replaced. Likewise, it could assess the current status of Russia-NATO military-to-military communication and determine where it should be enhanced to address the pathways to escalation that the NRC identifies. This group could also identify farther-reaching transparency and confidence-building measures that reduce the threats NRC members perceive vis-à-vis one another. The results of their work would be briefed to the NRC and the most promising options pursued. The process could look similar to that through which the Civil Society

Reducing Russia-NATO Tensions 2
Advisory Panel on Women, Peace and Security has engaged with NATO since 2016. This group of 28 individuals and institutions meets regularly with stakeholders across NATO to advise them on the implementation of U.N. Security Council Resolution 1325 and the broader Women, Peace and Security agenda.⁷

A single proposal or initiative cannot eliminate the potential for conflict in a tense and complicated Russia-NATO relationship, and even the modest steps outlined here may prove too ambitious for some to consider. If put into practice, however, they could offer important insights into the roots of the current Russia-NATO security dilemma and strategies to manage its impacts safely. In so doing, they might lay the groundwork for more significant—and necessary—measures when the time is right. This approach is far more prudent than accepting the status quo, which leaves ample prospects for conflict and a risk of escalation that is unacceptably high.

Notes


5. A group of non-governmental experts would, presumably, have greater flexibility to convene under present circumstances than a Track 1 working group.

6. The European Leadership Network and the Russian International Affairs Council underscore the value in bringing together non-governmental experts from Russia and NATO.

Military Measures to Stabilize the Situation in the Baltic Region

Lt. Gen. (ret.) Evgeny Buzhinsky

Deteriorating relations between Russia and NATO countries are having an increasingly negative impact on stability in Europe, and particularly in the Baltic region. Instruments aimed at preventing a destabilizing buildup of forces and enhancing security through confidence- and security-building measures (CSBMs) in the maritime domain could be essential elements of a plan to stabilize the Baltic region.

It must be acknowledged that interpretations of the causes and implications of the ongoing crisis in European security vary greatly among countries involved, not least between Russia and the United States. From Moscow’s perspective, the governments of Estonia, Latvia, Lithuania, and Poland artificially stoke the threat from Russia citing what they perceive as Moscow’s aggressive intentions. In response, NATO has in recent years increased its military presence in the region. NATO is conducting air-policing missions in the Baltics. In addition, it has deployed, on a rotational basis, multinational battle groups to Estonia, Latvia, Lithuania, and Poland as the alliance’s Enhanced Forward Presence on its eastern flank, supplemented by unilateral U.S. military measures.

As stated in the Military Doctrine of the Russian Federation, the movement of NATO members’ military infrastructure to Russia’s borders is considered among the main external military threats to Russia. Assessing the current situation in the northeast, the Russian General Staff has pointed out that NATO is creating command-and-control infrastructure in the Baltics, stockpiling offensive armaments along the Russia-NATO contact line, increasing airfields and airport capacity, and stockpiling material resources—all of which would allow the alliance to quickly build up its grouping by moving NATO Response Force into the region.

On the NATO side, states in the Baltic region have similar concerns about the possibility of Russia’s rapid movement into the region. It is likely that Russia as well as the NATO countries concerned might be interested in stabilizing measures to help prevent a destabilizing military buildup along the Russia-NATO contact line.
Just sharing statistical information about armaments and equipment located in the area may be of little value in reassuring either side. Much more valuable would be both sides adopting measures of restraint focused on troop movements and actions that could lead to miscalculations or dangerous confrontations.

The parties should consider applying these measures to a wide area including Poland, Lithuania, Latvia, Estonia, part of the Western Military District of the Russian Federation, the Republic of Belarus, and the Baltic Sea. Including part of Germany could also be discussed. It will be easier to achieve a mutually acceptable agreement in the absence of aggressive intentions, local conflicts, and issues regarding disputed territories.

Under such an agreement, Russia would agree to significantly lower the intensity of military activity in the northwestern part of the Western Military District, ensuring that force groupings in Pskov and Kaliningrad regions take a more pronouncedly defensive posture and pledging not to strengthen them in the future. At the same time, NATO countries would do the same with respect to their armed forces in the region. Such an arrangement would involve strict control of all force and asset movements towards the Russia-NATO contact line. Of course, such measures need to address unilateral arrangements for deployment of additional forces and military infrastructure between the United States and countries of the region. Such movements should be confined to only two categories: for defensive military exercises (their size, duration and frequency would be subject to agreement) and for the implementation of planned rotations of force and asset rotations.

For all troop movements above a certain size, prior notification would be given indicating the purpose, destination, start and end time, the number of armaments and equipment moved, as well as troop numbers. Information would also be provided on their withdrawal from the area. To ensure effective implementation of the proposed agreement, predictability and confidence between its participants and an enhanced regime for administration and information exchange, including inspections, should be developed for the Baltic region.

Current tensions in the sphere of European security also underscore the need for a framework to manage military activity in the Baltic Sea to enhance the security and confidence of littoral states. To date, proposals tackling this issue have focused on preventing incidents. Another, potentially more comprehensive approach could involve developing a set of CSBMs for the Baltic Sea.
Such measures, encouraged in Chapter X of the 2011 Vienna Document, could be modeled on existing arrangements used in other areas, specifically the Document on Confidence- and Security-Building Measures in the Naval Field in the Black Sea.2

In geopolitical terms, there are similarities between the situation in the Black Sea and the Baltic Sea. In both cases, littoral states include Russia, NATO countries, and states that are not formally aligned with either.

In particular, CSBMs for the Baltic Sea could include prior notification of certain aspects of naval military activities, including activities in which non-littoral states take part. This provision would create no direct requirements for third states, and it would not restrict the passage of any specific warships into the Baltic Sea. Yet participating littoral states would be responsible for notifying all other participating states and sharing of information with third-state partners. This provision could apply to possible joint exercises with the United States (conducted together with other NATO members) as well as to exercises where Russia is joined by China (such as the Naval Interaction-2017 exercise).

Specific criteria will need to be negotiated regarding which aspects of military activities are subject to prior notification. From the Russian perspective, these would most likely include activities involving ships equipped with deck aviation, cruise missiles, or missile defense systems. Naval activities that involve the movement of ground troops and military equipment could also be included.

As noted before, Russia, and NATO countries may be interested in agreeing on constraints on force movements in the Baltic region in view of the obvious threats they pose for European security. Naval confidence- and security-building measures are a feasible area of cooperation where Baltic Sea littoral states can address their security concerns.

Notes


Possible Options for NATO-Russia Crisis Reduction

Hon. Madelyn R. Creedon

With the existing bad relations between the U.S. and Russia, the global pandemic and the associated economic crisis, and a host of other issues at play, is it possible to reduce nuclear tensions between NATO and Russia? Is the current instability the “new normal,” the best that can be achieved under current circumstances? The answer to both questions has to be no. Avoiding a nuclear crisis between NATO and Russia remains of the utmost importance and should be pursued, even if prospects for success are dim. The consequences of inaction are unacceptable.

There are two steps that could be taken now to reduce the potential for crisis and possible nuclear escalation, and one that would lay a foundation for future opportunities. These steps would improve situational awareness for space and cyber activities and remove legal impediments to future military-to-military engagement.

Space and Cyber Awareness

The ability to recognize and understand warning signs of a crisis, increasing the time available to de-escalate tensions, would be an important first step to avoid a possible nuclear incident. While the U.S. and Russia already have a communication hotline, there is no way to ensure that they understand each other’s actions in space and cyberspace.

Space support for military activities has been in place for decades, but old assumptions that these space assets were safe from attack by adversaries are no longer valid. While the United States and Russia abandoned their kinetic antisatellite programs in the early 1990s, largely because of the debris that was created, China disrupted this anti-debris posture with its test in January 2007. Russia has re-engaged in developing and deploying kinetic capabilities; most recently testing a direct-ascent anti-satellite weapon capable of destroying satellites in low-Earth orbit in April.

Russia and China are also developing non-kinetic anti-satellite weapons, such as lasers and on-
orbit capabilities. In February Russia was observed maneuvering its COSMOS 2542 and 2543 satellites “which behaved similar to previous Russian satellites that exhibited characteristics of a space weapon [and] conducted maneuvers near a U.S. Government satellite that would be interpreted as irresponsible and potentially threatening in any other domain,” according to an April 15, 2020 U.S. Space Command press release.2 The newly released summary of the U.S. Defense Space Strategy highlights Russia and China as presenting “the greatest strategic threat [to U.S. and allied space systems] due to their development, testing, and deployment of counter-space capabilities, and their associated military doctrine for employment in conflict extending to space.”3

Any anti-satellite capabilities used against space-based nuclear command-and-control or early-warning capabilities would have a dramatic effect and be seen as a major escalation by the victim of such a strike. Such actions could easily be interpreted as a precursor to a nuclear attack. Given these capabilities, any detected on-orbit maneuvers could be interpreted as “potentially threatening” by one side even if they were not intended as such.

Washington and Moscow have decades of experience with nuclear signaling, especially with tools such as bomber demonstrations and nuclear exercises. For the most part these are understood and accepted for what they are—show of force demonstrations supporting deterrence or, for the U.S., reassuring allies. Space-based nuclear saber-rattling is new, poorly understood, and could lead to misunderstanding and potential conflict.4

The U.S. better understanding Russia’s intent with respect to U.S. space-based nuclear command-and-control systems would reduce the chance of misunderstanding, and potential escalation to a nuclear crisis. Russia has similar concerns about NATO and U.S. capabilities and would no doubt benefit from similar understandings. To ensure the integrity of their respective nuclear command-and-control systems and reduce the chance of miscalculation, Russia and the United States, through NATO, could agree to an initial exchange of data identifying space-based systems associated with nuclear command and control and early warning.5

Next, both sides would agree to share information in advance about activity such as orbital maneuvers or activity involving lasers, that would come within a certain distance or otherwise appear to interfere with the identified satellites.6
The U.S. could use the Combined Space Operations Center (CSpOC) at Vandenberg Air Force Base to receive and provide information, as it is already staffed by representatives of some NATO countries. Russia would identify its companion facility.

A secure method of voice and data communications would have to be established between the CSpOC and NATO and between NATO and the Russian location, but there would be no need to exchange personnel, establish any physical facilities or participate in any cooperative programs. Such an arrangement would also be consistent with NATO’s recent declaration that space is an “operational domain.”

A similar concept could also be established for cyber threats to nuclear command-and-control systems. While this would be much more difficult and might not include an advance notification requirement, establishing a dedicated voice and data communications capability to identify any potential cyber interference with nuclear command and control could be useful.

Military-to-Military Exchanges

In the wake of Russia’s annexation of Crimea, the United States cut off military-to-military cooperation with Russia. This was later enshrined in U.S. law, a situation that has the secondary effect of limiting any NATO military-to-military exchanges. Eliminating these provisions from U.S. law would allow any future exchanges, should the day come that NATO and the United States view such exchanges are needed.

Notes

1. India has also demonstrated a kinetic anti-satellite capability with its test launch in March 2019, when it blew up one of its own satellites.


4. The recently published summary of the U.S. Defense Space Strategy (see above citation) de-
declares that “space is now a distinct warfighting domain, demanding enterprise-wide changes to policies, strategies, operations, investments, capabilities, and expertise for a new strategic environment.” NATO, on the other hand, has developed a space policy that as Secretary General Jens Stoltenberg says is focused on protecting NATO’s ability to communicate via satellite. Germany and many others in NATO and the European Union have focused on developing international norms that would prohibit generation of space debris and more generally prevent irresponsible behavior and activity by all space-faring nations.

5. U.S. systems such as Milstar and SBIRS are already publicly identified.

6. An earlier variant of this concept associated with early warning, the Joint Data Exchange Center (JDEC), was a cooperative initiative first signed by Presidents Clinton and Yeltsin in 1998, to exchange data on missile launches and early warning. The effort was eventually abandoned as unworkable largely over unresolved issues of liability, as the JDEC was to have a physical facility in Russia and the U.S. A virtual JDEC was discussed again during the Obama administration as part of an effort to establish regional missile defense cooperation. Although the U.S. agreed to voluntarily provide advance launch notifications, missile defense cooperation discussion was abandoned as a result of congressional opposition and Russia’s invasion of Ukraine and annexation of Crimea.

COVID-19 Nuclear Lesson: First Regenerate Trust

RAdm (ret.) John Gower, CB OBE

COVID-19: The Wrong Lesson

Over the next few months, nations and international organizations will pick over their individual and collective responses to the COVID-19 pandemic. Some will complete their reviews even as the pandemic rages elsewhere. Sadly, the main conclusion many will draw from the experience will match the way most nations faced the crisis: that the solution to future transnational threats rests in nationalism or isolationism. Reviews will point to the success of the most isolating and draconian example: New Zealand. National solutions are easier to imagine, easier to implement, and, perhaps most importantly for those who espouse them, easier to abandon when memories fade and costs rise.

Such insular reviews will most likely miss, or deliberately obfuscate, that the strong national responses were necessitated by the failure to properly use available global and multinational responses to address COVID globally. There was a lack of trust by some major nations in the World Health Organization (WHO) despite its proven record. This doubt was amplified in part by some of the WHO’s own behaviors, influenced apparently by the desire to keep significant donor nations engaged. The result was a failure to enact an early and significant global quarantine and limit travel in a way that would contain the spread of the virus effectively. While the policies of New Zealand Prime Minister Jacinda Ardern were admirably focused and implemented, it would be folly to see them as a template for wider responses to transnational challenges.

Wrong Lesson: Nuclear Implications

The parallels for the global nuclear order could not be more stark or disheartening. The markers of international nuclear cooperation—the arms-control and -reduction treaties—are a critically endangered species. Most are extant only in memory; those that survive, like the U.S.-Russian New START agreement, are teetering on the brink of extinction. The multilateral Nuclear Non-Proliferation Treaty (NPT) seems less and less relevant to global security. Nationalist rhetoric abounds between the major nuclear-armed states (NAS), and both the U.S. and Russia are ex-
panding the breadth and warfighting utility of their arsenals while articulating a broader and more salient role for nuclear weapons in their national security strategies. A return to nuclear testing, the cooperative ban on which is the strongest indicator of remaining adherence to the obligations of the NPT, is being discussed in serious terms. It is hard to see where the last few pockets of trust remain.

Additionally, new stresses on cooperation and internationalism are rapidly developing. The effects of climate change are disproportionately striking equatorial and tropical nations. Faced with, at best, economic disaster, and at worst existential peril, their populations will look largely north for succor. International tensions will rise and northern hemisphere nations (among them all the NAS) might succumb to belligerent responses to these pressures. The imminent and inevitable arrival of artificial-intelligence and machine-learning capabilities in national and military analysis and decision-making risks exacerbating these stresses and accelerating crises. While nuclear tensions have ebbed and flowed over their history, for the first time these two new stresses limit the time available to make genuine and irreversible progress on those elements which most threaten global stability.

Resurrecting Trust

Last year, with assistance from the Council on Strategic Risks and later the Norwegian U.N. Mission, the Norwegian Institute of International Affairs and the Toda Peace Institute, I presented at the UNHQ a paper advocating a 10-point Code of Nuclear Responsibility as a means for improving trust and stability and as a baseline for re-establishing arms-control norms and, ultimately, arsenal reductions.¹

Two elements are worthy of attention. The first step to restoring and maintaining trust is for countries to demonstrate restraint, for example by constraining nuclear weapons to the strategic level. Second, the modern multipolar nuclear world urgently needs viable crisis communications. The code expresses these as requirements for the NAS to:

1. In all circumstances exercise maximum restraint in rhetoric, posture, activity, and readiness, in normal times and, especially, in crisis, and not employ nuclear weapons as levers of statecraft, except as strategic deterrents to other NAS.  
2. Ensure that sufficient, unambiguous communication pathways exist at the level of the National Control Authority for crisis communications between all NAS.

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Restraint

Any signs of restraint would reverse the current rhetoric and expansions prevalent in Washington and Moscow. There remains in most nuclear states room for both reductions in readiness and relaxations in nuclear posture without risk to national security. In this, the U.K. has gone the furthest of the NATO nuclear nations. It is urgently necessary to make progress away from broadening situations meriting a nuclear response, expanded in the U.S. 2018 NPR and responding rhetoric in Russian President Vladimir Putin’s speeches, and toward a broader policy where the only role for nuclear weapons is deterrence against a nuclear attack by others (sole purpose). France and the U.K. should consider the unilateral or multilateral abandonment of caveats concerning a potential nuclear response to non-nuclear attacks in their declaratory policies to lead the way.

Crisis Communications

The second area is more concrete and perhaps easier to achieve than the first, as it aims to fill the gaps in capabilities for managing and de-escalating nuclear crises. Where hotlines exist and are still functional, they are exclusively point to point between two potentially adversarial nuclear states and not fit for a multipolar, complex nuclear world. A project led by the Institute for Security & Technology (formerly Technology for Global Security), CATALINK, seeks to design a modern, robustly encrypted, and survivable omnilateral solution. I would urge its sincere consideration by the P5 and ultimately all NAS. I am working in this focused group of policy, technical, and manufacturing experts to make progress on this ambition, including the involvement of a “broker” non-nuclear weapon state.

Conclusion

The simple lesson for the nuclear order from COVID-19 is that global problems require global solutions arising from global cooperation. Global cooperation exists only in an environment of international trust. In the nuclear domain, the current state of this trust is discouraging. All NAS, especially the U.S. and Russia, bear an urgent responsibility to reverse this. The two measures I outline here offer opportunities to begin to take the heat out of the rhetoric and capability expansions. Progress here will mean rebuilding a space of trust in which a pause in, and perhaps even a reversal of, the current negative nuclear trajectory becomes possible.
Notes


Reducing Tensions and the Risk of Conflict in NATO-Russia Relations

Łukasz Kulesa

Tensions between Russia and NATO have become, to some extent, normalized and ritualized. There are of course inherent dangers involved when nuclear-armed adversaries confront one another as Russia and NATO do. However, the confrontation has proven to be less dangerous than some initially dire predictions. Fighter aircraft scramble to intercept and shadow the aircraft of the other side, and warships maneuver in close proximity, but this has not yet resulted in uncontrolled NATO-Russia escalation. In fact, the only known such incident resulting in the loss of life was the 2015 Turkish shootdown of a Russian jet above the Turkish-Syrian border, which was de-escalated through political means. Diplomatic and military-to-military contacts may be used less frequently and less intensively than they should be, but the NATO-Russia Council has met several times since 2014. NATO top brass and the Russian Chief of General Staff do maintain military-to-military channels of communication.

The biggest challenge to NATO-Russia relations is currently not a danger of a military clash, but rather both sides’ preference to stick to the status quo rather than pursuing genuine diplomatic outreach. This may be understandable given the depth of conflict of interests, and the conviction (which I share, looking at Russia’s recent actions) that both sides do not equally share blame for the current state of affairs. Sadly, given the aversion to engagement, any proposals to break the deadlock are either seen as non-starters or mere exercises in propaganda. For example, Moscow has recently pledged not to conduct large-scale military maneuvers on the border with NATO until the end of 2020. But it failed to mention that no such exercises were planned, or that its other major war games (such as Kavkaz-2020) would proceed anyway.

Despite the current situation, there remain a number of useful confidence-building steps that need to be considered. These could include creating a dedicated NATO-Russia incident-prevention and management mechanism, or gaining Russia’s agreement to update by mutual process the Organization for Security Cooperation in Europe’s Vienna Document on Confidence- and Security-Building Measures. Such steps may prove useful in improving the tactical situation, but may be too technical to shift the strategic landscape. In order to improve the state of the relationship, it may be more useful to “think big” about unilateral initiatives which would con-
vincingly signal a willingness to change policy, and thus generate interest and kick-start high-level engagement from the other side.

A NATO Initiative on Non-Strategic Nuclear Weapons in Europe

NATO has repeatedly expressed concern about the stockpiles and doctrinal role of Russian non-strategic nuclear weapons even as it has moved to improve the credibility of its own nuclear assets in Europe, including forward-deployed U.S. weapons in Europe. At the same time, NATO states are still very interested in arms control solutions and internal debates in some countries—most recently in Germany—frequently touch upon the need to address arms control as well as deterrence issues. Russia, for its part, continues to demand the withdrawal of U.S. weapons from Europe.

Here lies a chance to go big. To address nuclear risks in Europe, and building on some preliminary pre-2014 work, NATO should develop and present a proposal for reciprocal and phased actions in the area of non-strategic nuclear weapons. Phase one could include information exchange and opening up a dialogue about current operational status and doctrinal role of U.S./NATO and Russian non-strategic nuclear weapons. Mutual transparency regarding numbers and locations of weapons would be a logical accompanying step, but may be too difficult at such an early stage, given the mistrust on both sides. Phase two could include a process to develop options for reducing the quantity and strategic salience of such weapons, including partial or complete withdrawal from current storage sites in Russia and on NATO’s territory, or phasing out of some Russian non-strategic systems (NATO has only one). NATO could also specify that if and as long as Russia constructively engages in such talks, the Alliance would not change its current nuclear posture, including broadening the group of countries engaged in nuclear sharing.

Such a proposal would signal NATO’s willingness to be as open as possible regarding its nuclear posture and also consider a more fundamental change of its posture—provided Russia is willing to take reciprocal actions which would significantly diminish its ability to engage in nuclear coercion or warfighting using non-strategic nuclear weapons. This proposal could also be integrated into supporting any future U.S-Russia talks on post-New START arms reduction.

A Russian Initiative on Post-INF Missile Restraint for Europe

In September 2019, Russian President Vladimir Putin proposed to NATO a “moratorium” on
Intermediate-Range Nuclear Forces Treaty (INF)-class missiles, noting that Russia would not deploy such missiles in Europe as long as the U.S. refrained from doing so. The main flaw, and the reason NATO was dismissive of the Russian proposal was that it did not cover the existence and continued deployment of SSC-8 / 9M729 cruise missile. NATO classifies the missile as INF-range, a charge Russia denies.5

Since the demise of the treaty, both Russia and the U.S. have moved forward with the development of new types of INF-class missiles, with Russia continuing to actively deploy the INF-range system. Once these U.S. systems reach the production phase, the U.S. may begin the process of deploying these conventional and potentially nuclear-armed land-based missile systems to Europe. From Russia’s viewpoint, this would have serious strategic consequences in terms of an increased threat to its decision-makers, crucial command-and-control, and other critical infrastructure—the same concerns that led Russia to negotiate the INF Treaty in the first place.

In order to prevent such a development, Russia should consider coming back to the table with a proposal that would build on its own moratorium. Such an offer would need to include the withdrawal from service (if Russia prefers, as a “goodwill gesture,” without disputing the range of the system) of the 9M729 missiles. Withdrawal and destruction under observation of all the launchers and missiles would be the preferable option from the Western point of view. But other solutions may be suggested by Russia, such as placing the withdrawn systems in designated permanent storage sites, which could be monitored remotely to detect any attempts to return them to service. NATO states and Russia would then pledge not to deploy, or allow deployment, of land-based missiles of 500-5,500 km range in Europe. The United States would be free to deploy them on their own territory and in other regions of the world, while Russia would be able to develop INF-class missiles other than the 9M729, and deploy them beyond its European territory.

Granted, such a political arrangement to keep Europe free of INF-range missiles could be easily violated during a crisis, due to the mobile nature of the launchers. This proposal does not address other developments in the missile domain. However, a strong signal showing Russia’s willingness to address the concerns of not just the U.S., but other members of NATO with regards to the 9M729 missile, could positively affect broader NATO-Russia dynamics. The absence of INF-class missile systems from Europe, even if fragile, would increase both arms race stability and conflict stability. Ideally, it could also help to launch talks on a broader agreement establishing limits on INF-class missiles in Eurasia or globally.
Notes

1. Łukasz Kulesa is Deputy Head of Research at the Warsaw-based Polish Institute of International Affairs (PISM). The author’s views and proposals in this contribution are made in his personal capacity and do not represent the position of PISM.


The waning of the traditional arms-control regime between Washington and Moscow raises the challenge of maintaining strategic stability in an environment not regulated by legal restrictions and inspections. Deterrence remains the mainstay of stability, but in the absence of treaties other parallel measures are needed. These include reliable, 24/7 communication channels between military and security headquarters as well as the offices of the heads of state; periodic face-to-face contacts between national security officials; deconfliction mechanisms in areas where both sides conduct military activities; and a platform for discussing defense doctrines and strategies to reduce misunderstanding.

Some of these mechanisms have existed for a long time, like the hotline between the White House and the Kremlin; others are a more recent phenomenon, like the U.S.-Russian deconfliction mechanism in Syria. Occasionally, the Chief of the Russian General Staff meets with the U.S. Chairman of the Joint Chiefs of Staff, and with NATO’s Supreme Allied Commander Europe. So far, these professional exchanges have been running well, allowing both sides to have a better and clearer view of what the other sees and might do in the future. Yet on the continent of Europe, where Russian and NATO forces confront each other in a new era of tension and mistrust from the Barents to the Baltic to the Black Sea, there is a clear need to develop new tools for deconfliction.

This area of confrontation is not contiguous; it is not as heavily militarized as its Cold War predecessor that cut through Central Europe. However, it cuts through Ukraine and now runs much farther to the east, close to St. Petersburg and not far from Moscow. Apart from this restored on-the-ground standoff, both NATO and Russian forces are more regularly engaging in military activities in each other’s vicinity. On several occasions, Russian and NATO warplanes came within a few feet of each other; so did their warships. Large-scale military exercises, which have recently resumed, carry another risk for miscalculation and escalation, not to speak of the continuing low-intensity conflict in Donbass.
A few confidence-building measures are still in place in Europe, including the incidents-preventing agreements from the 1970s and the 1992 Open Skies Treaty, despite the recent decision by U.S. President Donald Trump to pull out of that accord. Yet there is still no permanent mechanism for dealing with various contingencies that can escalate to a military confrontation between Russia and NATO. This is a serious flaw with potentially disastrous consequences.

It is time to transform the NATO-Russia Council (NRC) established under the 2002 agreement into a proper military liaison office with a mandate to prevent incidents between the two sides’ armed forces on the ground, at sea and in the air and, should such incidents happen, prevent them from escalating. Russia keeps a mission at NATO in Brussels originally designed for developing partnership and cooperation between the Cold War adversaries. Yet due to recent circumstances, this channel of communication is as good as defunct. The NRC could be also used for timely clarification of military activities that either side might find suspicious or dangerous. Both sides would be able to use the revamped NRC to explain their military doctrines, defense strategies, and nuclear postures in order to reduce the other side’s misinterpretation and thus prevent miscalculation.

The reformed NRC should be essentially a military mechanism. Political relations between Russia and NATO are unlikely to be restored in the foreseeable future. It is also crucial to keep the new relationship businesslike and avoid any diplomatic posturing. Military professionals, by their training and ethos, are thoroughly suitable for such an exercise. Their mission would not be to defend their government’s official positions; nor would it be to engage in arguments with the other side. They would focus squarely on a narrow but exceedingly important task: to keep the NATO-Russia confrontation from leading to a military confrontation.

There is a precedent of sorts for this proposal. For four and a half decades, from 1946/47 till 1990, the Soviet Union, on the one hand, and the United States, the United Kingdom, and France, on the other, maintained little-known military liaison missions to each other’s military headquarters in both parts of the divided Germany. Designed to assist coordination in the joint administration of occupied Germany, these missions, with the advent of the Cold War, turned into a de-facto legalized military intelligence mechanism that allowed the Western powers and the Soviet Union to monitor military activities on the other side of the Iron Curtain. Undoubtedly, this helped to keep the Cold War cold.

The current confrontation is not a new cold war. These days, conflict between NATO and Russia
could only happen inadvertently. To prevent it, handling incidents and exchanging information is key.
Managing U.S.-Russian Nuclear Dangers

In June 2017, the Nuclear Crisis Group released *Urgent Steps to De-Escalate Nuclear Flashpoints*, a set of timely recommendations to increase stability and reduce the risk that nuclear weapons will be used by accident, miscalculation or intent.¹ The section on U.S./NATO-Russia included the following recommendations:

**Immediate Steps**

- Urgently resume effective U.S.-Russia and NATO-Russia high-level dialogues and military-to-military discussions;
- Rapidly launch U.S.-Russia strategic stability talks focusing on potential dangers flowing from existing and potential nuclear deployments, doctrines and modernization programs;
- Fully implement, strengthen existing and pursue new accident-prevention agreements related to aviation and incidents at sea beginning with the Baltics and Black Sea regions;
- Agree to limits and be more transparent on exercises (i.e., better prior notification, limit scale), preferably by modernizing the Vienna Document and constraining certain exercises, such as strategic bomber flight profiles, integration of nuclear elements in conventional exercises, and large, quick deployment military exercises near national borders;
- United States, Russia and NATO states commit not to issue public threats of nuclear first use;
- Reinvigorate European conventional arms-control efforts, including limitation of forward deployments of conventional weapons, stabilization of the Open Skies Treaty, replacement of the Conventional Forces in Europe Treaty, and modernization of the Vienna Document; and
- Implement existing agreements for a Joint Data Exchange Center as a first step to expanding nuclear discussions to other nuclear states.

**Follow-On Steps**

- Examine and define the conditions under which the states could adopt bilateral or multilateral nuclear no-first-use agreements;
• Pursue a phased de-alerting program of all land-based nuclear-armed missiles;
• Agree to place all tactical nuclear weapons into central storage under verification; and
• Broaden future arms control discussions to include additional nuclear reductions, as well as
  missile defense and precision-strike weapons, and include other nuclear weapon states as
  participants or observers.

Notes