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Does One Size Fit All? How a P5 Interaction Could Reduce Nuclear Risks

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Introduction

There is a growing consensus among policymakers and the expert community that the modern international security situation is spiraling down to its lowest levels since the end of the Cold War with little or no prospects for quick recovery. The current reality is defined by conflicting models of “great power competition” and a “multipolar world.” The world is faced with a sharp deterioration in relations between nuclear powers characterized by degradation of the arms control architecture, erosion of strategic stability, and ongoing nuclear modernization programs increasing the likelihood of another arms race. Such degraded relations, coupled with weakened lines of communications and new technological military advances, unacceptably increase the risk of escalation scenarios between major actors which could lead to nuclear use.

The Treaty on Prohibition of Nuclear Weapons (TPNW) exacerbated these negative trends. Anticipated further polarization of the multilateral debate on

nuclear weapons in the Non-Proliferation Treaty (NPT) domain sparked new concern in the international community towards nuclear risk reduction (NRR). The debate has gathered momentum in various international fora and is expected to be a significant point of discussion between the five Nuclear Weapon States (NWS) recognized under the NPT known as “the P5”, the Nuclear-Allied States, and the Non-Nuclear-Weapon States (NNWS) at the upcoming 10th NPT Review Conference (RevCon) and further down the Review Cycle.

For the last 12 years, the P5 (the French Republic, the People’s Republic of China, the Russian Federation, the United Kingdom, and the United States of America) faced high-expectations from NNWS to reduce their reliance on nuclear weapons. The P5 received varying levels of criticism for not meeting these expectations. Partly, this is due to the complexity of the current geopolitical situation, the erosion of the arms control architecture, and rapid technological and military advances.¹

As such, in order to be successful, future NRR efforts must be feasible, consider the

¹ UNIDIR Report “Nuclear Risk Reduction: Closing Pathways to Use”, 2020

interests of all parties, and establish the political will to uphold commitments in a changing security environment.

Additionally, the European Leadership Network (ELN) Report² suggests stalled engagement with the P5 Process itself hindered progress. However, in 2019 the P5 decided to establish an in-depth dialogue on nuclear doctrines and risks. Progress along this route is essential to assuage NNWS concerns leading towards the NPT RevCon and beyond. Fortunately, the U.S. - Russia Summit in Geneva established a goal to embark on a new round of integrated, deliberate and robust dialogue on strategic stability. Both countries are seeking to lay groundwork for future arms control and risk reduction measures. This study explores the opportunities for more practical engagement in NRR using the P5 Process.

Nuclear Risk Reduction Criteria

A common definition of nuclear risk reduction is critical to making progress. Each P5 country understands risk reduction measures to mean slightly different things, and no common definition has been

consistently proposed. On the surface, reducing nuclear risk is simple to define: reduce the risk that a nuclear weapon will be detonated, “whether intentionally, by miscalculation or by accident.”³ However, interpreting such a statement can take on a variety of meanings to each reader. This report approaches NRR from two main perspectives. First, limiting the number of nuclear weapons available for use and, second, reducing the likelihood any of the nuclear weapons that do exist will be used.

Currently there are two primary strategies to limit the number of weapons available. Non-proliferation efforts work to prevent the spread of weapons and their technology beyond the current cadre of nations who possess them to those that do not. Limiting the number of countries that own nuclear weapons reduces potential flashpoints where the weapons could be used and makes negotiations easier for reducing the overall numbers of weapons. Additionally, arms control and disarmament efforts work to limit and reduce the number of nuclear weapons already existing. Reducing the number of weapons across all parties reduces the perceived threat, limits the

² ELN Report “Overcoming disunity: Reinvigorating the P5 Process a decade on” by M.Hoell and A.Persbo, 2020

³ NPT/CONF.2020/PC.III/WP.49, p. 3.

amount of potential destruction, and decreases the probability of accidents.

The second focus area for NRR is to minimize the likelihood of nuclear detonation. Reducing such a likelihood is more complicated than focusing on the number of weapons, because each country will have different thresholds for the use of nuclear weapons. Instead of focusing on numerous reasons each state may decide to use nuclear weapons, it is more effective to minimize threat perception. This can be done in multiple ways. This report will focus on two: communication and strategic stability.

Communication enables states to minimize the chance of a misunderstanding leading to a nuclear exchange. Such clarification can occur through mil-to-mil channels, as well as publications such as missile launch notifications or doctrinal statements. Increased communication works as a trust building measure when consistent truthful communication endures over time. It is also the best way to prevent escalations in a crisis scenario. Lastly, maintaining strategic stability requires a multifaceted approach concerned with minimizing the threat

perception of each nuclear armed nation. Current doctrines rely heavily on a strategic balance of forces that maintain deterrence across a broad range of domains. If this balance is perceived to be threatened or lost for any reason, it may tip the decision calculus of the threatened party towards nuclear use. Finding ways to address these strategic stability concerns, while more complicated, may be a promising path towards advancing NRR.

P5 Country Reports

To better understand each country's interests concerning NRR, the four criteria for analysis, nonproliferation, arms control and disarmament, communication and strategic stability aspects will be discussed for each country.

The Russian Federation

For as long as nuclear weapons exist, Russia sees it as a priority to minimize nuclear danger and prevent situations fraught with risk of nuclear weapon employment. Its military policy is based on prevention of nuclear conflict first and foremost through the use of political, diplomatic and other non-military means, as well as through

effective deterrence at a minimum level of sufficiency.

As for the NRR as inter-state confidence-building measures, they are viewed by Russia in the general context of strengthening international security and stability while making progress towards nuclear disarmament, taking into account current strategic realities.

Strategic Stability

In Russia's view, maintaining strategic balance and stability remain crucial factors for minimizing nuclear risks. It is believed that further steps in this direction could be made individually (by NWS and "umbrella states") and cooperatively through bilateral and multilateral efforts aimed to reduce confrontational potential, avoid acute problems in the strategic sphere and prevent crises that could lead to direct military confrontations involving nuclear powers.

From Russia's standpoint, the importance of dialogue on strategic stability is growing when many elements of the arms control architecture have been demolished and relations among nuclear powers are poor. It is believed in Moscow that being stewards

of the world's largest nuclear arsenals obliges Russia and the U.S. to bear unique responsibility for international security.

In accordance with the understandings reached at the Russia - U.S. Summit in Geneva, the two countries held a new round of strategic stability consultations in July 2021. Moscow stands ready to continue engaging with Washington in a systematic, comprehensive and result-oriented interaction in this area. However, creating a framework that would help that interaction would be needed.

The underlying idea of the Russian vision is to jointly develop a new "security equation" taking into account all factors affecting strategic stability in a holistic manner. The Russian formula envisages the inclusion of the entire spectrum of both nuclear and non-nuclear, offensive and defensive arms that are capable of accomplishing strategic tasks, as well as new and emerging technologies. The "post-INF" issue is highlighted by Russia as the one requiring priority attention. The concrete proposals on the framework for future arms control endeavours were shared by the Russian MFA officials with their U.S. colleagues back in October 2020.

Potential future agreements will also require the development of adequate verification measures which cannot be universal in Russia's view and must correspond to the subject and scope of the specific agreement.

Offensive arms: From Russia's perspective, in the current circumstances, offensive arms that are capable of accomplishing strategic tasks are not limited to traditional strategic systems (such as ICBMs, SLBMs and heavy bombers) only. These objectives can also be achieved with conventional precision systems. This is why Russia believes that particular attention should be paid to the systems usable for launching a first counterforce strike, including an integrated nuclear-conventional one, against the opponent's territory in order to neutralize or weaken its deterrent. Also, Russia sees it justified to maintain a focus on delivery vehicles and associated respective platforms, including the missile launchers.

Defensive arms: Russia consistently advocates for the inseparable link between strategic offensive and defensive arms, which is stipulated in the preamble of the

New START Treaty, this is why a proper account of the missile defense has no alternative for Russia. It is believed that there is room for a realistic discussion on quantitative, qualitative and geographic parameters of strategic missile defense systems.

Non-strategic nuclear weapons (NSNW): Russia has significantly reduced the quantity of its NSNW as compared to that possessed by the USSR in 1991. Of particular importance is that these weapons have been turned to the non-deployed category; they are located exclusively within Russian national territory and consolidated at centralized storage facilities. In Russia's view, the deployment of nuclear weapons outside the territory of the NWS and training military personnel of the NNWS to handle and use them diminishes the level of international and regional security.

Emerging technologies: Russia is open to discussing "new technologies" together with all factors, affecting strategic stability. In its view, artificially taking them out of the overall strategic context is counterproductive and its consideration as

a separate topic will not yield a positive effect. Also, Russia believes it is important to develop common approaches to preventing an arms race in outer space and ensuring security of space activities.

Arms Control and Disarmament

Seeking optimal NRR solutions, Russia continues to put a strong emphasis on arms control, including limitations on nuclear and missile weapons. Top officials in Moscow have repeatedly called for preservation of the existing arms control agreements, as well as for developing new arrangements that could provide predictability and restraint in nuclear and missile areas.

The extension of the Russia-U.S. bilateral New START Treaty to a full five-year period is regarded in Moscow as a major nuclear risk reduction measure. Without the Treaty's effective verification mechanism and intense data exchange providing mutual insights into strategic arsenals of the world's two major nuclear powers, the nuclear risks associated with uncertainty and possibility of a new arms race would have inevitably grown. Russia is open for further interaction in this area - first of all, with the U.S.

Building on the wide variety of issues covered in the Russian proposal on development of a new "security equation" mentioned earlier in the text, Moscow understands that it will be quite difficult to include all elements in a single Russia-U.S. treaty. It is stated that with mutual consent the sides could adopt a package of interlinked arrangements that could have a different legal status. Moreover, it is not excluded that some of them could be designed in a way to make room for others to join.

In terms of nuclear disarmament efforts, Russia is supportive of the noble cause of shaping a world free of nuclear weapons and believes in a realistic and balanced step-by-step approach based on the principle of undiminished security for all. Further nuclear reductions in its view cannot be done solely on a bilateral with the U.S. basis. Such efforts should encompass a meaningful multilateral dialogue (ultimately including all nuclear-armed states) based on the principles of consensus, equality and mutual consideration of legitimate security concerns of all sides. Naturally, Russia would be interested in participation of the

U.S. nuclear allies - France and the U.K., especially against the background of the announced increase of the British nuclear arsenal.

In a more broader sense of NRR, in April 2021, the President of Russia called for wider discussions between the UN Security Council Permanent Members of the issues related to ensuring global stability with the goal of “creation of an environment for a conflict-free coexistence.”⁴

Non-Proliferation

Russia considers NPT as the most important international legal instrument on nuclear non-proliferation and one of the pillars of the modern world order.⁵ It also appreciates and fully supports the work of the IAEA as an international organization that possesses the necessary authority and competence to monitor the observance of the non-proliferation obligations under the NPT. It is also supportive of the elaboration of a legally binding agreement on creating a zone free of nuclear weapons and other WMDs in the Middle East. Russia commends efforts of the UN Security

Council and its ad-hoc 1540 Committee on the WMD nonproliferation.

In 2021-2022, Russia will assume presidency in the Missile Technology Control Regime (MTCR), which is the only multilateral missile export control mechanism. As a country that possesses advanced rocket and space technologies, Russia actively participates in the work of the MTCR Technical Experts Meetings to regularly update the list of controlled goods and technologies. It is in the Russian strong interest to attain the imperative goals of non-proliferation of WMD delivery vehicles. Also, Russia has proposed the Global Control System for Non-Proliferation of Missiles and Missile Technology initiative which included a number of confidence building measures and other mechanisms that would reduce the incentives of countries in gaining access to military missile capabilities.

Russia has developed and implemented a set of measures to counter terrorist acts, all its nuclear facilities regularly undergo comprehensive security checks.

⁴ Presidential Address to the Federal Assembly Available at: <http://en.kremlin.ru/events/president/news/65418>

⁵ Russia’s position at the seventy-fifth session of the UN General Assembly p.38 Available at: https://www.mid.ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/4252717?p_p_id=101_INSTANCE_cKNonkJE02Bw&_101_INSTANCE_cKNonkJE02Bw_languageId=en_GB

One of the gravest concerns of the Russian side in non-proliferation sphere remains the continued practice of the so-called “nuclear sharing” missions that provide for involving NNWS in planning and training of nuclear weapons employment.

Communication

Historically, USSR/Russia has gained and accumulated considerable experience in the field of NRR through numerous measures aimed at ensuring stable communications with its vis-a-vis. Although some pieces of this “safety net” have fallen out, others remain in place up to day.

Doctrinal Transparency: In June 2020, Russia published its latest strategic planning document titled “Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence”⁶, which states that the Russian Federation “takes all necessary efforts to reduce nuclear threat and prevent aggravation of interstate relations that could trigger military conflicts, including nuclear ones.” The document, aimed at increasing nuclear transparency and eliminating misinterpretations of

Russia’s policy in the nuclear domain, confirms that nuclear weapons are considered exclusively as a means of deterrence, and is aimed at protecting its national sovereignty and territorial integrity. At the conceptual level, Russian doctrinal documents contain specific elements aimed at reducing the role of nuclear weapons in the defence policy of the country (priority is given to the development of strategic non-nuclear deterrence) and providing for further reduction of their role if and when the strategic situation improves.

Russia’s interest in doctrinal sphere is associated with further systematic dialogue in this area (including at the mil-to-mil level) in order to prevent lack of understanding, misinterpretation, or deliberate distortion of its doctrinal concepts, as well as to promote strategic trust and thus reduce nuclear risks.

Political Signaling: Russian approach to NRR is based on the 1985 “Gorbachev-Reagan” principle that “a nuclear war cannot be won and must never be fought.”⁷ Russia has

⁶ Text of Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence Available at: https://www.mid.ru/en/foreign_policy/international_safety/disarmament/-/asset_publisher/rp0fiUBmANaH/content/id/4152094

⁷ Swimming through a sea of troubles: Russia and the P5 Process Available at: <https://www.europeanleadershipnetwork.org/commentary/swimming-through-a-sea-of-troubles-russia-and-the-p5-process/>

consistently advocated for the reaffirmation of this formula in bilateral and multilateral formats. The 1985 declaration recently reconfirmed in bilateral presidential Russia-China (June 29, 2021)⁸, as well as in Russia - U.S. (June 16, 2021)⁹ statements have been highly welcomed by the international community. Currently, the Russian MFA sees that it is only logical to reaffirm the Gorbachev-Reagan principle in the P5 format - this could help in decreasing tensions between the nuclear powers and sending positive signal to the international community which may lay ground for further NRR efforts.

Russia's interest, however, goes beyond the confirmation by the five countries of the inadmissibility of a nuclear war. It is in favour of a more ambitious P5 statement including inadmissibility of any armed conflict between nuclear powers. The reasoning behind this logic is that a conventional conflict between nuclear weapons possessors has a potential of going up the escalation ladder to a nuclear dimension.

Crisis Prevention Measures and Communications: After the collapse in August 2019 of the INF Treaty with nuclear risks being increased due to the announced by some countries plans to deploy in Eurasia previously banned by the Treaty ground-based missiles, Russia offered to undertake creative efforts to avoid new missile arms race in the "post-INF" world which resulted in its October 2020 initiative on de-escalation of the situation in Europe. This proposal included specific options for reciprocal verification and renewed commitment to the earlier declared unilateral moratorium on the deployment of ground-based INF missiles until U.S.-manufactured missiles of similar classes appear in the respective regions. Russian authorities continue to underline their readiness to engage in mutually beneficial dialogue with the U.S., as well as with other NATO countries on this issue.

Previously, with USSR/Russia's participation numerous arrangements, agreements and measures have been developed to increase predictability and restraint; prevent and manage dangerous military activities or

⁸ Text of Joint Statement of the Russian Federation and the People's Republic of China on the Twentieth Anniversary of the Treaty of Good Neighbourliness and Friendly Cooperation between the Russian Federation and the People's Republic of China

⁹ Text of U.S. - Russia Presidential Joint Statement on Strategic Stability Available at: <http://en.kremlin.ru/supplement/5658>

incidents; ensure communication lines and their proper employment in crisis; as well as to provide for de-escalation through means of diplomacy.

Russia is open for their extension or adaptation, if needed. For instance, it's known that some specific ideas were shared with the U.S. in order to adapt the 1972 bilateral Agreement on the Prevention of Incidents On and Over the High Seas. Also, some concrete measures on general de-escalation were offered by the Russian side in the Russia-NATO Council.

Warnings (missile launches and exercises):

Specific bilateral agreements on exchange or relevant information, including pre-notifications of missile launches and major strategic exercises are still in place. In December 2020, Russia and China renewed the bilateral 2009 Agreement on Notification of Launches of Ballistic Missiles and Space Launch Vehicles for another 10 years.¹⁰

Earlier, Russia contributed to NRR through greater transparency aimed at avoiding

miscalculations and misperceptions. In October 2019, it was the first-time experience when the Russian MOD voluntarily and in advance briefed its foreign partners on the "Grom-2019" (Thunder-2019)¹¹ strategic command and staff exercise. From Moscow's perspective, the above-mentioned steps help to reduce the "trust deficit" and, as a result, to decrease nuclear risks. They are seen as highly instrumental, both within the framework of binding arms control agreements and on a voluntary basis.

The People's Republic of China

China's nuclear strategy has been defined by "no first use of nuclear weapons doctrine"¹² as the cornerstone of nuclear risk reduction policy. Trying to maintain a minimum deterrent against other nuclear-armed states, namely the United States, Chinese military strategy is shaped by the fact that the US and Russia still possess up to 90% of global nuclear weapons.¹³

Non-Proliferation

¹⁰ О подписании Протокола о продлении срока действия Соглашения между Правительством Российской Федерации и Правительством Китайской Народной Республики об уведомлениях о пусках баллистических ракет и космических ракет-носителей от 13 октября 2009 года Available at: https://www.mid.ru/ru/maps/cn/-/asset_publisher/WhKWb5DVBqKA/content/id/4486556

¹¹ Moscow held a briefing on the preparation and conduct of the strategic command post exercises "Grom-2019" Available at: https://eng.mil.ru/en/news_page/country/more.htm?id=12256831@egNews

¹² China's National Defense 2006 Available at: <http://en.people.cn/whitepaper/defense2006/defense2006.html>

¹³ Nuclear Arms: Who has what at glance <https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>

Engaging on multilateral levels under platforms related to the nonproliferation of chemical, biological, radiological, and nuclear (CBRN) weapons is one the major Chinese measures towards nuclear risk reduction. Since the late 1990s, China has been actively engaged with other non-proliferation mechanisms, such as the Zangger Committee, the Nuclear Suppliers Group, the Wassenaar Arrangement and the Missile Technology Control Regime. Important enough, China is the first nuclear weapon state to adopt a nuclear "no first use (NFU)" policy and an officially stated "not to use nuclear weapons against non-nuclear weapons states."¹⁴ Besides, it acceded to the Treaty on the Non-Proliferation of Nuclear Weapons and became the first nuclear weapon state to ratify the IAEA Additional Protocol.

Arms Control and Disarmament

The Chinese nuclear arsenal is drastically smaller than that of the United States and Russia. The Chinese nuclear arsenal is estimated to be around 290 warheads, while US and Russian stockpiles number

3,800 and 4,350.¹⁵ Under these circumstances, in order to avoid negative economic and military consequences of a fully-fledged arms race, China, for a long time, has been proposing "multilateral negotiations on nuclear disarmament."¹⁶

Communication

China has traditionally been a strong proponent for cooperation in the area of nuclear arms control and multilateral collaboration. Strengthening communication mechanisms on key strategic issues regarding the nuclear arms framework play a vital role in building trust among the nations.

Doctrinal Transparency: Similar to previous official military documents, the 2019 China's Defense White Paper vividly states that its military doctrine focuses on peaceful cooperation and that China "does not engage in any nuclear arms race with any other country and keeps its nuclear capabilities at the minimum level required for national security."¹⁷

¹⁴ China's new export control role Available at: <https://www.wilmerhale.com/en/insights/client-alerts/20201021-chinas-new-export-control-law>

¹⁵ DIA Estimates for Chinese nuclear warheads Available at: <https://fas.org/blogs/security/2019/05/chinese-nuclear-stockpile/>

¹⁶ Work together to build a safer world for all Available at: <https://www.fmprc.gov.cn/ce/cgvienna/eng/xw/t607086.htm>

¹⁷ China's new 2019 defense white paper Available at: <https://www.csis.org/analysis/chinas-new-2019-defense-white-paper>

Political Signaling: Beijing is taking into account growing tensions between the US and China. It has published a document entitled “China’s National Defense in the New Era” in which it sends its partners and competitors broad and careful message about risk of a nuclear arms race in Asia and around the world.¹⁸

Crisis Prevention Measures and Communications: China fully realizes potential risks of nuclear arms race between major powers. Thus, strengthening collective responsibility mechanisms on global and regional non-proliferation, disarmament and confidence building measures with P5 states is one of the major keys for crisis prevention.

Warnings (missile launches and exercises): China strongly supports “shared responsibility” concept and multilateral control of nuclear missiles exercises. Beijing believes in the importance of the UN and P5 states on missile launches control and building collective non-proliferation measures.

Strategic Stability

According to official documents, China’s fundamental goal is to carry on the “self-defensive nuclear strategy” and deter nuclear threats against China. For China, maintaining and modernizing a still limited but high-quality nuclear arsenal with the updated technologies serve as a deterrent mechanism and main pretext to carry on working on its nuclear strategy. China’s 2015 Defense White Paper openly states that it seeks “nuclear capabilities at the minimum level required for maintaining its national security.”¹⁹ In this context, the Chinese stance towards its nuclear strategy and nuclear risk reduction (NRR) policy can be described as pragmatic, meaning “no engagement in arms race.”

For China, NRR policy is mainly defined by its current and near-term military capabilities, nuclear arsenal limitations. Thus, Beijing’s logic lies in line with collective nuclear weapons responsibility with its P5 counterparts to decrease the role of nuclear weapons in their military and national security doctrines. However, taking into account rising geopolitical tensions between the United States and

¹⁸ China’s national defense in the new era Available at: http://english.www.gov.cn/archive/whitepaper/201907/24/content_WS5d3941ddc6d08408f502283d.html

¹⁹ The 2015 Chinese white defense white paper on strategy in perspective: maritime missions require a change in the PLA mindset Available at: <https://jamestown.org/program/the-2015-chinese-defense-white-paper>

China, Beijing is cautiously reforming its military, including its nuclear forces. As a result, growing deterioration of bilateral relations between two key geopolitical stakeholders could trigger a new arms race.²⁰ China may consider adding some preconditions to the long-standing policy of “no first use.” Beijing’s nuclear risk reduction measures are part of a broader vision for global non-proliferation. It is stated that “China’s nuclear doctrine is the ultimate goal of complete prohibition and thorough destruction of nuclear weapons.” That is why Chinese (NRR) measures are basically rooted in its domestic nuclear arms limitations, regional and multilateral legislative mechanisms of non-proliferation, disarmament and confidence-building.

Offensive and defensive arms: China mainly specifies its nuclear arms policy and its arsenal as purely defensive in its nature. Besides there is no clear estimation on its offensive arms capabilities. However, Chinese defensive nuclear arms narrative may easily change to offensive discourse based on actions of the US and its allies. For China, the US attempts to create a global

missile defense system and deploy medium-and shorter-range ground-based missiles in the Asia-Pacific region and Europe will undermine regional peace and global strategic stability.

Emerging/new technologies: China has a striving ambition to become the key player in AI and new technologies by 2030. Modernization and “AI-zation” of its nuclear capacities is an ongoing process that certainly touches upon development of autonomous weapons and automated C2 systems (unmanned surface vessels and unmanned tanks, armed drones using AI to collect, fuse, and transmit big data). Taking into account growing concerns from the US and Western allies, China is ready to discuss “new technologies” under the nuclear arms control and negotiation framework.

Non-strategic nuclear weapons (NSNW): China’s approach towards NSNW is shaped by its “no first-use policy” and has been regarded as a defensive mechanism. At the same time, considering emerging challenges in the region, China is open for discussions on the future of the global arms control negotiation framework, specifically

²⁰ US-China tensions raise risk of nuclear reaction to cyberattacks: report Available at: <https://www.scmp.com/news/china/diplomacy/article/3129764/us-china-tensions-raise-risk-nuclear-reaction-cyberattacks>

on conditions on how NSNW can be integrated into the new grand nuclear arms agreement.

The United States of America

The United States believes “a nuclear war can never be won and must never be fought” as was stated in the Reagan-Gorbachev joint statement in 1985 and is committed to establishing a world in which the risk of nuclear conflict is eliminated. However, until nuclear weapons are eliminated the risk of nuclear employment exists and must be minimized. In the most recent Nuclear Posture Review (NPR) published in 2018, the previous administration emphasized the goal of eliminating nuclear weapons with the caveat that until nuclear weapons can be eliminated from the world, the United States will retain “modern, flexible, and resilient nuclear capabilities that are safe and secure.” As such, there are several areas of interest that the United States understands as contributing to the reduction of these risks.

Non-Proliferation

Non-proliferation and prevention of nuclear terrorism are of the utmost importance to the United States, and dedicated effort in these realms is seen as vital to reducing nuclear risk. Preventing the spread of nuclear materials and weapons technologies to terrorist groups or irresponsible state actors greatly reduces the risk of a rogue actor acquiring and using a nuclear device in an unexpected manner. These objectives are often aligned among all nuclear weapons states and can be an excellent starting point to build trust and cooperation between parties. Such nascent relationships can then be leveraged to address other areas of concern between the parties paving the way for further risk reduction.

The United States has been an active participant in the international nuclear nonproliferation regime. Beginning in 1991, the Cooperative Threat Reduction Program was established to work with several former member states of the USSR to secure and dismantle weapons of mass destruction. Additionally, the United States continues to demonstrate its commitment to the nonproliferation regime through providing \$200 million, or approximately

25% of the budget, for the International Atomic Energy Agency (IAEA) which is the primary international agency responsible for inspecting various countries for possible proliferation activities.

Arms Control and Disarmament

The United States sees arms control and disarmament efforts as a foundational component of nuclear risk reduction. These efforts support the ultimate goal of the elimination of nuclear and other dangerous weapons, and can contribute to the sustainment of strategic stability in the interim. If these arms control agreements are verifiable, enforceable, and all parties comply with their responsibilities, they can be an extremely valuable means of reducing nuclear risk. They simultaneously build trust between the parties, enhance communication, provide visibility into opposing arsenals, minimize misunderstandings, complement other international obligations, and open the door to further risk reduction efforts.

Some of the more prominent treaties the United States has been involved in include the New Strategic Arms Reduction Treaty (New START), the Treaty on the

Nonproliferation of Nuclear Weapons (NPT), Agreement on the Notifications of Launches of ICBMs and SLBMs, Treaty on the Reduction and Limitation of Strategic Offensive Arms (START), Limited Test Ban Treaty, and the Threshold Test Ban Treaty, among many others. The United States has also been faithful to its obligations under the various disarmament agreements reducing its nuclear stockpile by over 85% since the height of the Cold War and has not deployed any new nuclear capabilities in over two decades.

Communication

Doctrinal Transparency: Openness and transparency are cornerstones of nuclear risk reduction. It has been the practice of the United States to be open about nuclear policy to help reduce misunderstandings and misperceptions. An excellent example of this openness began after the end of the Cold War with the publishing of a Nuclear Posture Review for each new administration since 1994. This document has often outlined areas of importance to the United States regarding nuclear weapons, current posture, and intended direction moving forward. Many other

statements, documents, and material are also published openly to clearly communicate the intentions of the United States in order to reduce risk. The NPR and other supporting documents are often published in multiple languages and are intended to clearly communicate the broad intentions of the United States to a global audience. By presenting the stance openly, it is hoped to minimize miscalculations and misperceptions and, therefore, reduce associated risk.

Crisis Prevention Measures and Communications: In addition to publishing material concerning nuclear policy, the United States established a Nuclear Risk Reduction Center managed by the Department of State initially to increase the communication between the former USSR and the US in 1987. The center was created to relay information about arms activities and, in doing so, to avert any potential escalation through clear and rapid communication. Over the years the Nuclear Risk Reduction Center has grown into the national center for any information exchanges required by 13 arms control treaties and security binding agreements

between the United States and more than 55 foreign governments and international organizations.

Strategic Stability

Of primary importance to the United States is the focus on utilizing nuclear weapons in a deterrent capacity. Throughout the various strategy and policy documents, the emphasis is clear: the United States maintains nuclear weapons for a deterrent capacity and not in an aggressive posture. By declaring these weapons a defensive hedge and not as a primary offensive tool, this can reduce some of the tension. In addition, there is not a one-size-fits-all approach. Tailored and flexible deterrence strategies help reduce the risk of nuclear escalation regardless of the scenario being faced.

The United Kingdom

The United Kingdom's nuclear policy is intrinsically linked with that of its NATO allies, both France and the United States. The country spends 2.2% of its GDP on defence, second highest of the NATO countries.²¹ The UK follows a policy of deterrence and had up to March 2021 been

²¹ Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy. Published in March 2021. P. 101.

progressing towards a smaller and more transparent arsenal for over two decades, but announced significant change in its nuclear posture in *Global Britain in a Competitive Age: Integrated Review*, where an increase in the cap on the UK nuclear stockpile was announced.²² Britain has sought interdependence with the United States since the 1950s but has at the same time stressed the importance of maintaining an independent targeting policy, namely the ability to target Moscow, often named the ‘Moscow criterion’²³ which previous governments have seen as important requirements of UK deterrence. The UK-Russia relationship has been growing strenuous over the years and became even more strained after the Ukraine crisis in 2014 and the Skripal incident in 2018.²⁴ In 2008 the United Kingdom removed all US tactical weapons from its soil but the recent review suggests it might be trying to “show off” to the US.

Non-Proliferation

The United Kingdom sees countering proliferation as integral to its security and prosperity²⁵ and supports the current non-proliferation regime through the NPT agreement. The UK will take a strong stance against emerging threats such as the illicit acquisition of dual-use or advanced tech, by for example reinforce international governance of state access to CBRN weapons, materials or related technology and are dedicating a 22 million pounds funding in 2021-2022 to enhance nuclear detection capabilities²⁶, using intelligence to tackle proliferation networks and proliferation finance by identifying hot spots, routes etc.

According to their *Independent Sanctions Policy*, the United Kingdom will hold countries such as Iran and North-Korea to account “to combat state threats, terrorism, cyber-attacks, and the use and proliferation of chemical weapons.”

Arms Control and Disarmament

The UK is shifting from its decade long stable policy and announced an increase in

²² Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy. Published in March 2021.

²³ John Baylis (2005) British Nuclear Doctrine: The ‘Moscow Criterion’ and the Polaris Improvement Programme, *Contemporary British History*, 19:1, 53-65

²⁴ <https://rusi.org/in-the-news/it-or-not-russia-and-uk-need-each-other-%E2%80%93-and-will-have-talk>

²⁵ Global Britain in a Competitive Age, p. 85-86.

²⁶ Global Britain in a Competitive Age, p. 102.

its stockpile by about 45%, from previous 120, capped at 180 to rise to 260 by the mid-2020s. Suggesting that the UK wants to be perceived more assertively when it comes to their nuclear power. The change in the UK's strategic posture, which has yet to go through proper debate in Parliament as some critics have pointed out²⁷, also indicates that Britain will or would use Weapons of Mass Destruction (WMD) to thwart attacks or threats from emerging technologies. The UK will have the smallest stockpile of the NPT-recognised nuclear weapon states but will be seen to be quantitatively increasing their nuclear stockpiles which may be contravening its disarmament obligations under Article VI of the Nuclear Non-Proliferation Treaty. Analysis: This change in posture indicates that the UK government sees credible nuclear deterrence as being more important than its disarmament commitments.

Communication

One of the most significant policy changes is that the UK is shifting from somewhat transparent to "will remain deliberately

ambiguous about precisely when, how and at what scale we would contemplate the use of nuclear weapons."²⁸ Which seems slightly contradictory to claims that such weapons would only be used in "extreme circumstances of self-defence."²⁹

Doctrinal transparency: The United Kingdom has never provided the exact size of its nuclear arsenal and has now committed fully to strategic ambiguity. The goal and interest for the United Kingdom in choosing strategic ambiguity is most likely to deter nuclear use by inspiring caution in an adversary during a time of crisis. The UK and its US ally are making their doctrinal transparency more like that of China and Russia with the aim to "convince decision-makers in Moscow and Beijing that the risks of miscalculation are too high to pursue regional adventurism or aggression."³⁰

Political signalling: It's Integrated Review clearly showed that the UK wants to be seen as a relevant P5 country despite departing the European Union and having the smallest stockpile of the P5 countries. "As a P5 member, we have a responsibility to

²⁷ RUSI: <https://www.rusi.org/commentary/going-ballistic-uk-proposed-nuclear-build>

²⁸ Global Britain in a Competitive Age, p. 77.

²⁹ Global Britain in a Competitive Age, p. 76.

³⁰ War on the Rocks. Heather Williams. <https://warontherocks.com/2021/04/u-k-nuclear-weapons-beyond-the-numbers/>

contribute to international security.”³¹ The government has just deployed the aircraft carrier HMS Queen Elizabeth on operational deployment to India, Japan and South Korea (among other places) in May 2021, which is most likely meant to serve as a signal to the US (as an ally) and China (as a potential adversary) that the UK can bring military power to bear in the Indo-Pacific area.

Crisis prevention measures: The United Kingdom does not restate the famous “a nuclear war cannot be won and must never be fought” in its *Integrated Review* and does in general not focus on opportunities to reduce risks of misperception, which would be highly important going forwards with its newly adopted doctrine of strategic ambiguity.

Strategic Stability

It is obvious from the UK’s *Integrated Review* that it sees -or wants others to see- growing international competition and increasing threats from Russia, China, North Korea and Iran. The UK wants to remain a relevant and

strong actor against Russia as (according to the UK) Russia “continues to pose the greatest nuclear, conventional military and sub-threshold threat to European security” and that the “modernisation of the Russian armed forces, the ability to integrate whole of state activity and a greater appetite for risk, makes Russia both a capable and unpredictable actor.”³²

The United Kingdom is strongly committed to full implementation of the NPT, including nuclear disarmament, non-proliferation and peaceful uses of nuclear-energy. “However, we reserve the right to review this assurance if the future threat of weapons of mass destruction, such as chemical and biological capabilities, or emerging technologies that could have a comparable impact, makes it necessary.”³³ This marks a change from the previous Trident program, and sets the UK on a different policy than that of its US ally which says it would only use nuclear weapons to respond to or deter a nuclear attack, as stated by US president Joe Biden during his election campaign.³⁴

³¹ Global Britain in a Competitive Age, p. 69.

³² Defence in a Competitive Age, March 2021 Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974661/CP411_-_Defence_Comm_and_Plan.pdf

³³ Global Britain in a Competitive Age, p. 77.

³⁴ <https://www.pbs.org/newshour/politics/biden-says-he-would-push-for-less-u-s-reliance-on-nuclear-weapons-for-defense>

The UK has had a strong strategic relationship with France and sees that relationship as an important part of European security, the two countries being the sole countries in the continent to provide deterrence towards Russia. “The 1958 Mutual Defense Agreement (MDA) has been central to our shared nuclear security goals and we are committed to its renewal in 2024,”³⁵ is clearly stated in the UK’s nuclear policy. It also highlights the 2010 Teutates Treaty between France and UK, and that “no circumstances under which a threat to the vital interests of one would not constitute a threat to the vital interests of the other.”³⁶ The UK will renew its nuclear deterrent and replace its Vanguard Class submarines with four new Dreadnought Class submarines.

Given the changing security and technological environment, the UK now has taken the stance of extending its “long-standing policy of *deliberate ambiguity* and no longer give public figures for our operational stockpile, deployed warhead or deployed missile numbers” arguing that this

ambiguity will contribute to strategic stability.

France

France’s nuclear path was set in 1945 immediately following the end of World War II, and reconfirmed in the 1950s. The country is transparent about its doctrinal stance that it “will never engage into a nuclear battle or any forms of graduated response.” A major reasoning behind France’s determination of having nuclear weapons was firstly that France was aware of the limits of its influence as a non-nuclear nation within the international community, especially within the then Atlantic Alliance and the UN Security Council.³⁷ France was traumatised following the defeat in 1940 and the German occupation, and in the rebuild of the country the political leadership was adamant about the fact that nuclear weapons would strengthen the country in “never again 1940”³⁸ and in addition to that, “as soon as France wished to have its own tools to guarantee its security against the Soviet Union, only the nuclear choice made

³⁵ Global Britain in a Competitive Age, p. 77.

³⁶ Integrated Review, page 77.

³⁷ According to Francis Perrin, entering the Security Council room without nuclear weapons was like arriving at a “meeting of gangsters without having a knife to put on the table”. Quoted in Herbert Krosney & Steve Weissman, *The Islamic Bomb* (New York: Times Books, 1981), p. 70.

³⁸ See Céline Jurgensen & Dominique Mongin (ed.), “France and nuclear deterrence – A Spirit of Resistance”, *Recherche & Documents* n°01/2020, Fondation pour la recherche stratégique, 2020.

sense.”³⁹ Very early on, France was aware of the limits of national autonomy vis-à-vis the American protector. This autonomy has filtered through France’s foreign policy strategy and is fundamental to its nuclear doctrine/strategy and is seen in its attitude towards all the main pillars of the NPT.

Non-proliferation

France fully supports full implementation of the NPT and was the first nuclear power, together with the United Kingdom, to ratify the CTBT (1998). France sees non-proliferation as a fundamental path towards a safer and more peaceful world and claims it can be achieved through developing friendly relations between states, refusing the arms race and respecting the legitimate self-defence. As mentioned, France fully supports the NPT with the ultimate goal of elimination of nuclear weapons and complete disarmament but is realistic about that the progress to this kind of goal could only be gradual and would most likely not be willing to sacrifice strategic stability or its autonomous foreign policy to show initiative in its own disarmament.

Arms Control and Disarmament

As previously mentioned, one of France’s utmost national interests is its ability to remain an autonomous actor in the international arena. None of the other NPT countries have associated military nuclear capability and national independence to the same point as France: nuclear capability and national independence are, in the eyes of the French administration, intrinsically interlinked concepts. There has been a decade-long continuity in policy of agreement with obligations of disarmament under article VI of the NPT Treaty and France wants to be seen as a fully cooperative and responsible NWS by ratifying the NPT, but would not undertake unilateral disarmament as it would “exposing ourselves as well as our partners to violence and blackmail, or depending on others to keep us safe.”⁴⁰ That said, France has taken significant steps towards disarmament: it has halved its total warheads since the Cold War peak, no longer deploys nuclear weapons on its aircraft carriers, and it has introduced measures and processes which extend the time it takes to launch nuclear weapons to several days.

³⁹ Fondation pour la Recherche Stratégique - French Nuclear Deterrence Policy, Forces, And Future: A Handbook - Bruno Tertrais.

⁴⁰ Speech of the President of the Republic on the Defense and Deterrence Strategy, Paris, War College, 7 February 2020.

Communication

France is in general very willing to commit, and to initiate attempts to improve transparency about its nuclear armament. It has repeatedly published official information about its arms and is transparent about its policy that it “will never engage into a nuclear battle or any forms of graduated response” (Macron’s Feb 2020 speech) and sees clear communications as an important contribution to strategic stability and deterrence. From 1994 President Mitterrand gave a detailed account of France’s strategic weapons,⁴¹ to both Nicolas Sarkozy and Holland openly dismantling facilities and inviting international visitors to visit the grounds.⁴² Since then France has increased its emphasis on transparency and prepared a special dossier on nuclear transparency for the NPT Review in 2020. France has been quite vocal about their willingness to engage in risk reduction activities, and has led the work on a common reporting framework for the P5 countries in Beijing

2014 and similarly at the 2013 meeting in Geneva, France led work on transparency and confidence-building measures.⁴³

Strategic Stability

France sees its nuclear capabilities and deterrence posture as a vital interest, not only for the country itself, but for its European and NATO allies. This can be seen as a thread through any policy and strategy document and gets reaffirmed by the French government for decades, most recently by President Macron: “our nuclear forces have a deterrent effect in themselves, particularly in Europe. They strengthen the security of Europe through their very existence and they have, in this sense, a truly European dimension.”⁴⁴ The notion of vital interest within the European Union has grown even stronger with the United Kingdom leaving the Union, and France sees itself as the ‘main’ protector of the European Union countries following Brexit. That said, France’s most vital national interest is an independent and autonomous foreign policy, and it could almost be said that the country prides itself

⁴¹ Speech by François Mitterrand, President of the French Republic, on the French policy of deterrence, Paris, 5 May 1994.

⁴² Fondation pour la Recherche Stratégique - French Nuclear Deterrence Policy, Forces, And Future: A Handbook – Bruno Tertrais.

⁴³ ELN - The P5 Process 10 years on - 2019, Maximilian Hoell

⁴⁴ Speech of the President of the Republic on the Defense and Deterrence Strategy, Paris, War College, 7 February 2020.

of being able to, as mentioned above, be able to make its own decisions without having to ‘bend’ to the United States in terms of policy decisions and this is greatly important in how France sees strategic stability and something the country will not fall back on.

Negotiation Campaigns as a framework—the key to the P5 stalemate?

Most large deals are the “culmination of many focused negotiations among various parties, each with its own concerns.”⁴⁵ In other words, most big deals are built on “a series of smaller ones.” The P5 countries must approach the P5 process towards NRR in a similar manner by breaking complex risk reduction issues into smaller deals in order to negotiate in a more efficient manner.

When ‘the P5 process’ was suggested in 2008 it was hailed as ‘an important step forward’⁴⁶ by states, policy analysts and the public. Now entering its 13th year, the process is at a stalemate. It is time to take a

broader, more strategic approach by shifting to a multifront campaign among all P5 countries. Such a shift could focus on a more holistic negotiation process by breaking each of the key interest areas into smaller “deals.”

While it is important to choose the right tactics for each piece of the negotiation puzzle, it is also vital to identify and form a “negotiation campaign,”⁴⁷ a multi-frontal strategic approach to putting the various pieces together. By using a campaign, the countries could increase the likelihood of reaching an acceptable outcome, enhance credibility, and strengthen the P5 ‘alliance’ commitment to the NPT.

Dr. David Lax and Dr. Jim Sebenius developed a procedure to organize a negotiation campaign which will be used to structure a potential P5 campaign. In their process, once a target outcome has been identified and barriers preventing a deal are assessed the six following steps must be accomplished.

1. **Choose the right parties and group them into fronts:** Identify what

⁴⁵ Lax and Sebenius, page 1.

⁴⁶ Andrea Berger and Malcolm Chalmers (2013) ‘Great Expectations: The P5 Process and the Non-Proliferation Treaty’, WhitehallReport 3-13 (London: Royal United Services Institute), p. 1.

⁴⁷ Lax and Sibenius, page 1.

parties must be involved and analyse (and decide) how they should be grouped into manageable fronts. The fronts can be internal, external, political and national fronts. Lax and Sebenius suggest “mapping backward” from the target deal to discover who must be involved in the campaign, i.e. mapping out the target’s major influencers. The best way to group the influencers would be by shared key interest or based on tight relationships.

2. **Assess interdependencies among fronts:** for a successful analysis it is vital to assess the interdependencies among the fronts to understand if and how they are positively and/or negatively affected by one another. Are there any provisional agreements that need to be taken into account?
3. **Determine whether and when to combine fronts:** in complex situations with a large number of fronts (which NRR negotiation among the P5 countries most

certainly is) dealing separately with each front might be an effective way to organize the team’s effort. The benefits of combining fronts are that success on a single front could yield a resource or worth to others (increased transparency of one P5 country would for example be of worth for other P5 countries). When there is little or no interdependence among fronts they should be kept separate and only combined when it is important or beneficial for the wider deal-making.

4. **Sequence the campaign:** smartly sequence which key actor or front is locked in first, i.e. when the value of success on one front is enhanced by success elsewhere, focus elsewhere first. This could both send important signals and create success later on. “Focus earlier on a front when success at that stage is required for later progress or when it sends a positive signal, takes advantage of deference or influence among parties, or strengthens your later position.” In

the case of P5 NRR negotiations, getting a country which has been reluctant to give in on a certain issue, for example Russia on XYZ, could send important signals to others and get them to either compromise on their own red lines or to push other non-willing countries to compromise.

5. Determine how much information to share and when:

Information sharing and sequencing go hand in hand and public perception of the negotiation process can matter greatly. A negotiator needs to be able to evaluate where information might mobilize opponents.

6. Learn and adapt: Be prepared to re-design and continually evaluate the execution of the campaign as new information surfaces, and alignment and circumstances may change.

Table of P5 Nuclear Risk Reduction Interests

The table below highlights each of the P5 countries' interests in a variety of areas related to nuclear risk reduction. A P5 negotiation campaign should focus on commonalities and tradeoffs among these interest areas in order to break through the gridlock preventing further action by the P5 and progressing towards the NWS compliance with Article VI of the NPT.

	China	France	Russia	UK	US
Communication		Increased communications and transparency to a) avoid misunderstanding, b) assert itself as an independent European security provider	Increased communication to decrease misperceptions, prevent lack of understanding	Sees it as a position of strength to remain deliberately ambiguous and that 'deliberately ambiguous' could serve as a stabilizing approach.	Wants to avoid miscommunication and misunderstanding between the nuclear powers to prevent accidental escalation
Doctrinal Transparency	Open to doctrinal transparency dialogue as well as engagement with international community	Very supportive and open about France's nuclear doctrine. Publishes information about its nuclear stockpile on a regular bases. Sees it a strategic deterrence interest to have the information publicly available	Supportive of regular and systematic doctrinal dialogue, including mil-to-mil contacts	Deliberate ambiguity and will no longer provide public figures on the UK's operational stockpile, deployed warheads and deployed missile numbers. Interest is to convince Moscow and Beijing that the risks of miscalculation are too high to pursue regional adventurism or aggression	Supportive of open doctrinal transparency to help each NWS understand the intent of the others
Political Signaling	Collective nuclear weapons responsibility with its P5 counterparts to decrease the role of nuclear weapons in their military and national security doctrine	France's political signaling is first and foremost about signaling their position as a responsible nuclear power and an important provider of nuclear deterrence in the European continent	Ambitious P5 statement on inadmissibility of a nuclear war and any armed conflict between nuclear powers	It's interest is to signal that they are a responsible ally (to the US and France) and to Russia and China that the UK is still a global power and a relevant P5 country	Uses political messaging to emphasize deterrent posture of nuclear weapons. Has also used messaging to proclaim the inadmissibility of nuclear war
Crisis Prevention Measures and Communications	Strengthening collective responsibility mechanisms on global and regional non-proliferation, disarmament and confidence building. measures with P5 states	Very supportive of maintaining open communication channels with other NPT members in an effort to deescalate conflict if it were to arise.	Create a security system that would mitigate the circumstances provoking interest in development of missile arsenals, and provide effective mechanisms for ensuring security through political and diplomatic tools. Open for extension or adaptation of the previous agreements	Claims to be open to maintaining communications channels but doesn't seem to have any focus on reporting on those channels.	Supportive of maintaining open communication channels with other NWS in an effort to deescalate conflict if it were to arise.
Warnings (missile launches/exercises)	Supports important role of the UN and P5 states on missile launches control and further non-proliferation measures	Led the work on common reporting framework on missile and risk reduction activities	Based on extensive experience, Russia is open for new ideas in this area		Supportive of limited warnings to other NWS prior to potential misinterpreted events such as missile tests or military exercises

	China	France	Russia	UK	US
Strategic Stability Factors		Sees its nuclear capability as a vital interest and intrinsically linked to its national independency, for its own security and for its European and NATO allies. The country keeps its weapon levels at the lowest possible levels to maintain a strategic context/stability	"Post-INF" issue requires a priority attention. Offered to elaborate a new "security equation" taking into account all factors affecting strategic stability	UK wants the US to move forward with its W93 warhead programme which is inextricably linked to the UK's own programme. The UK wants to be able to position themselves as a global power and a good ally to the US	Strategic stability is important to maintain balance and prevent an overwhelming first strike
Defensive Arms (Missile Defense)	Collective disarmament	Official documents do not highlight this.	There is a room for a realistic discussion on quantitative, qualitative and geographic parameters of strategic missile defense systems	Strongly committed to full implementation of the NPT, including nuclear disarmament, non-proliferation and peaceful uses of nuclear-energy	US wants to be able to use missile defense against rogue actors
Offensive Arms		Official documents do not highlight this.	Particular attention to be paid to the systems usable for launching a first counterforce strike against the opponent's territory in order to neutralize or weaken its deterrent	No stated interest about offensive arms	The primary use case of nuclear weapons is as a deterrent and not as offensive arms. However the US will not be willing to give up their weapons until the global security environment changes in such a way they don't feel they need a deterrent
Emerging Technologies	Modern technologies are escalatory in nature	Official documents do not highlight this.	Artificially taking "new technologies" out of the overall arms control context is counterproductive; its consideration as a separate topic will not yield a positive effect	Will take a strong stance against emerging threats and are dedicating a 22 million pounds funding in 2021-2022 to enhance nuclear detection capabilities. They want to be able to position themselves as a dominant power	Emerging technologies can be destabilizing and must be included in further arms control discussions
Non-strategic nuclear weapons			Return the forward-based NSNW to the national territory of NWS and dismantlement of the corresponding infrastructure		NSNW decrease the threshold for nuclear use and must be included in future arms control discussions

	China	France	Russia	UK	US
Non-Proliferation	Supports current Non-proliferation regime through NPT/Export Controls	Supports current Non-proliferation regime through NPT/Export Controls	Prevent the erosion of the NPT regime. Supportive of elaboration of a legally binding agreement on creating a zone free of nuclear weapons and other WMDs in the Middle East. Stop the practice of "nuclear sharing" missions	Supports current Non-proliferation regime through NPT/Export Controls	Strongly supportive of maintaining the current non-proliferation regime to prevent the spread of weapons and related technology
Arms Control/Disarmament	Waiting for US/Russia to decrease nuclear arms arsenal	Fully agrees with obligations of disarmament under article VI of the NPT Treaty and has taken significant steps in halving its nuclear arsenal since the end of the Cold War. Wants to be seen as a fully cooperative and responsible NWS by ratifying the NPT, but would not undertake unilateral disarmament as it would "exposing ourselves as well as our partners to violence and blackmail, or depending on others to keep us safe."	Reverse the trend on AC architecture dismantlement. Ability of RU-US to conclude bilateral AC arrangements might be a stimulus for other NWS to join a meaningful discussion that would eventually lead to nuclear disarmament. Further nuclear disarmament steps to be multilateral (interested in participation of France and the U.K.)	As of March 2021 announced that its stockpile will go up of 40%. Interest is to appear like a strong counterpart to the US and to deter Russia. will now move toward an overall nuclear weapon stockpile of no more than 260 warheads, an increase of just over 40 per cent. quantitatively increasing their nuclear stockpiles	Believes arms control can be a means to prevent an arms race, but is very concerned that the agreements are being followed to the letter by both parties. Has been willing to withdraw from treaties if it interprets actions as counter to the treaty. Strong verification measures and clearly defined criteria are a must for the US

Future Research

While analysis of current positions of the various P5 countries is valuable, further work must be done to get each of the P5 countries to agree to work together towards NRR. Application of the negotiation campaign framework to the interests of the P5 countries may illuminate a viable path forward. Further research should examine the interests of each country, group such interests into the potential fronts, and simulate potential negotiations to best identify where the likely pitfalls will arise. Such simulations could be adjusted and reran with different fronts or finding alternative tradeoffs among the interests of the P5 countries. While simulations cannot replace actual negotiations, they may be able to provide the groundwork to break through barriers preventing the P5 countries getting to the negotiation table in the first place.

Conclusions and Policy Recommendations

The full five-year extension of the New START Treaty in February 2021 could potentially break the dangerous trend of

arms control architecture erosion. With this core mechanism for maintaining an aspect of strategic stability preserved, there is an opportunity to return to a more stable trajectory in the arms control sphere and enhance global security and stability. Such an advancement would likely require a complex, holistic approach to strategic stability and future arms control endeavors and include all nuclear-armed states in a multilateral discussion with the topic of NRR as one of the main priorities.

The recent establishment of a working group on doctrines and risk reduction within the P5 Process underscores the growing interest of the P5 countries to work towards decreasing the possibility of a nuclear confrontation. While the use of the P5 Process to conduct such a dialogue on NRR issues could be regarded as a risk reduction measure itself, this study revealed additional opportunities for reaching more practical results by the P5 in this domain. Possible points of convergence lay in increased communications and working towards easing concerns in the strategic stability sphere.

With the 10th NPT RevCon approaching, and possible discussions of NRR measures

between the P5 members in bilateral formats, such as U.S.-Russia, and multilateral settings such as the UN Security Council Permanent Members Summit, this paper suggests the following path forward.

Near-term goal. Reaching common understandings in a form of political messaging within the P5. Building on the recent bilateral Russia-China and Russia-U.S. statements which reaffirmed the principle of inadmissibility of nuclear war, the time has come to reinstate this formula in the P5 setting. Taking into account the escalation risks, this possible message may be adjusted to also include the idea of inadmissibility of any armed conflict between NWS. It would be advisable to issue such a joint statement before or at the upcoming NPT RevCon – which could send a positive NRR signal to the whole international community.

Mid-term goals. Continue further systematic and result-oriented dialogue within the P5 on strategic stability, risk reduction and doctrinal issues to avoid miscalculations and misperceptions.

The five countries might pave the way for further adaptation of bilateral or creation

of multilateral mechanisms for nuclear threat reduction, including through relevant information exchange, prevention and management of incidents, as well as crisis communication between NWS. For instance, the five countries could expand existing interaction on notifications of missile launches. Such agreements are still absent between some of the P5 states. Voluntary measures aimed at increasing transparency within acceptable limits and based on the principle of undiminished security for all are seen as helpful instruments for rebuilding trust and confidence and decreasing nuclear risks between the P5 countries.

Long-term goal. Further more practical interaction through political-diplomatic methods of ensuring international security and strategic stability. Eventually, this should entail cooperative solutions, including arms control and nuclear disarmament measures, embracing new technologies and other factors influencing strategic stability in the P5 and the P5+ formats.