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A new step to a nuclear nightmare in Europe[Visit the](#)[Receive the E-NEWSLETTER](#)*A new step to a nuclear nightmare in Europe**Abstract:*

Europe's security architecture has been progressively degraded over the course of this century. This has also been the case with nuclear weapons, which have returned to the European scenario together with new technologies in terms of their power and delivery means. In addition, renewed nuclear policies and doctrines have emerged due to the circumstances that characterise the new global order. The conflict in Ukraine, after the alert of Russia's nuclear forces, has shown that the possibility of escalation in this area is not mere speculation. Measures must therefore begin to be taken to avoid this kind of contexts, while ensuring the survivability and responsiveness of Western societies and armed forces.

*Keywords:**Nuclear, escalation, Ukraine, survival, response*

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Un nuevo paso hacia una pesadilla nuclear en Europa

Resumen:

La arquitectura de seguridad en Europa se ha degradado progresivamente a lo largo de este siglo. Esta situación se ha producido también en el ámbito de las armas nucleares, que han regresado al teatro europeo acompañadas de nuevas tecnologías en cuanto a su potencia y vectores de lanzamiento. Además, han surgido renovadas políticas y doctrinas nucleares debido a las circunstancias que caracterizan el nuevo orden global. El conflicto de Ucrania, tras la puesta en estado de alerta de las fuerzas nucleares rusas, ha mostrado que la posibilidad de una escalada en este ámbito no es una mera especulación. Por ello se deben comenzar a tomar las medidas necesarias para evitar este tipo de contextos, al tiempo que se debe garantizar la capacidad de supervivencia y respuesta de las sociedades y las fuerzas armadas occidentales.

Palabras clave:

Nuclear, escalada, Ucrania, supervivencia, respuesta.

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Introduction

Since the turn of the century, Europe's security architecture has been gradually deteriorating, showing the bitter face of armed conflict on several occasions. The nuclear field is no exception in this process, due to the demise of the Anti-Missile Defence Treaty (ABM) and the Intermediate-Range Nuclear Forces Treaty (INF). At first glance, one might think that the continuity of the New START treaty, which limits strategic arms until 2026, has been positive. This is true for Russians and Americans, but less so for Europeans, who have been seeing how their continent could once again become one of the game boards in the nuclear game of Cold War times.

In recent years, the arsenals of the traditional nuclear triad (aircraft, missile silos and submarines) have been renewed, especially in Russia, and a wide range of powers and an immense variety of delivery vehicles have been established. Prominent among these is the emergence of hypersonic missiles, whose interception poses serious difficulties.

Over time, the nuclear postures of the great powers have also been renewed, adapting to the circumstances of the new world order and new threats. Consequently, nuclear responses are not only directed towards possible similar attacks, but also include other types that may affect existential threats, vital interests or other dimensions which, while not as relevant, could be responded to with a nuclear weapon to set a limit that is not allowed to be transgressed. It is precisely these borderline situations that need to be carefully considered, because in a hostile environment of misinformation and misinterpretation, mistakes can be made that lead to nuclear escalation.

The conflict in Ukraine has not only shown its full conventional harshness, but it has also demonstrated that nuclear tension is an asset that can be used in support of the pursuit of objectives, which is why Russia's nuclear forces have so far increased their readiness to the point of being on alert. Similarly, various types of launchers have displayed their capabilities in military exercises.

Even if the tension that has arisen in the nuclear field went no further, the appearance of such weapons in the narratives of the conflict has made it clear that their use is a

possibility that would be reckless and irresponsible to rule out, and so, in all spheres, the necessary measures must be taken to deal with such a crisis.

International Relations (IR) theories and nuclear weapons

Today, the thesis of offensive realism is reminiscent of the logic of the "security dilemma" of the 1950s. This was based on the assumption that measures taken by one state to increase its security were taken to the detriment of the security of others. The actors are not hare-brained but think carefully about the repercussions of their actions, though they sometimes make miscalculations based on imperfect estimates¹.

According to this school of thought, the international system is led by powers that are never satisfied with their situation, which is why they tend to use force at a reasonable price, and since none of them can achieve absolute hegemony, they will find themselves in perpetual competition. As for the trend towards hegemonic power, this is based on the possession or ability to generate armed forces based on the land component and supported by nuclear forces. The capabilities of these nuclear weapons would have to be such that the state could achieve "nuclear superiority", i.e., be able to destroy the adversary society without major effects on its own. This may not be feasible between major powers, but "mutually assured destruction" (MAD) could be achieved².

A MAD situation tends to avoid escalation between hegemonic nuclear powers through mutual terror. However, one might wonder what the outcome of a situation in which one nuclear power is indirectly threatened by another through an intermediate actor or catcher would be. In this case, Cold War deterrence theories would be difficult to apply and other possible relationship scenarios would have to be explored.

One possible understanding of the current situation could come from the Russian perspective of the discipline of IR. For this, it should be considered that, with some variations, the doctrinal principles of the former foreign minister, Yevgeny Primakov, could have been widely applied by today's Russian leadership.

¹ MEARSHEIMER, John J., et al. *The tragedy of great power politics*. WW Norton & Company, 2001., p. 52-54.

² *Op. cit.*, p. 3, 84, 130-132.

For Primakov, Russia is an indispensable and independent actor in a multi-vector world with a polycentric architecture, managed by several major powers. One of the main elements of his theories is the emphasis on Russia's primacy in the post-Soviet spaces and that it should lead the integration of the former republics of the USSR. Opposition to the US-led world order is also a constant. The US and the effort to weaken the transatlantic link³. Another of Primakov's doctrinal pillars was the constitution of a power triangle between Russia, China and India as a counterweight to the Americans⁴.

Regarding nuclear weapons, Primakov considered them to be the basis of Russia's security and a guarantee of its strategic independence. Far from being an instrument that put the country at risk, they ensured the non-interference of other states in the actions carried out by the Russians⁵.

He maintained this stance throughout his life and at the beginning of the second decade of the century, in the best days of the nuclear reduction agreed with the Americans, he insisted that Russia's nuclear potential was the attribute of its status as a world power, without which neither the US nor Russia would have been able to achieve the status of a world power. Neither the US nor other countries would take it seriously. Convinced that measures like the projection of force and its direct application are habitually used in international relations, the Russians would need a high level of military preparedness and an adequate nuclear potential to defend their territory, their legitimate interests and those of their allies⁶.

The long road to Europe's nuclear nightmare

The current crisis in Ukraine follows a historic process of the crumbling of US-Russian nuclear cooperation. It is useful to look back to see how the sequence of events this century could point to a nuclear scenario based on the Ukrainian conflict. The events of the 1990s will not be analysed here, but Russia viewed NATO's expansion into Eastern

³ RUMER, Eugene. *The Primakov (Not Gerasimov) Doctrine in Action*. Carnegie Endowment for International Peace. June 5, 2019. <https://carnegieendowment.org/2019/06/05/primakov-not-gerasimov-doctrine-in-action-pub-79254> [see: 26/3/2022].

⁴ CHANDRA, Amresh. Strategic triangle among Russia, China and India: Challenges and prospects, *Journal of Peace Studies*, vol. 17, Issue 2. 2010, p. 40.

⁵ RUMER, Eugene. The Primakov (not Gerasimov) doctrine in action. *Op. cit.*

⁶ PRIMAKOV, Eugeny; IVANOV, Igor; VELIKHOV, Evgeny; MOISEEV, Mikhail. От ядерного сдерживания к общей безопасности (From nuclear deterrence to common security). *News*. 5 October 2010. <https://iz.ru/news/367072> (accessed on 26/3/2022)

Europe in 1999 (Poland, Hungary and the Czech Republic) and the Allied intervention in Kosovo in the Balkan scenario with reticence.

The year 2001 saw the attacks on the World Trade Center and the Pentagon in the US, ushering in a new worldview. One of its consequences was the US withdrawal in 2002 from the ABM treaty, which abolished missile defence measures, as a sign of détente with Russia. Perhaps this withdrawal was precipitated by the shock of the attacks in the heart of the US mainland, but for the Russians it was a further sign of mistrust⁷.

In 2004, the Baltic republics and several Eastern European states (Estonia, Latvia, Lithuania, Bulgaria, Romania, Slovakia and Slovenia) joined NATO. For the first time, the Alliance was on Russia's border itself, and Russian Foreign Minister Sergei Lavrov expressed concern about this development. Moreover, the situation was exacerbated by the fact that the Conventional Arms Reduction Treaty in Europe (CFE/FACE) did not include the Baltic republics, where such weapons could be accumulated⁸.

In 2007, the then Russian defence minister, Sergey Ivanov, said that the INF (Intermediate Nuclear Forces) treaty signed with the United States in 1987 had been a mistake, a fact that was borne out by the technological and numerical superiority that NATO had acquired over Russia. It should be noted that at the time, US Senator for Delaware, John Biden, considered Russia to be one of the main threats to his country⁹. In the years that followed, the Americans detected some Russian missile tests that might contravene the treaty, but did not make statements about them, possibly because the renewal of the New Strategic Arms Reduction Treaty (START), which concerned strategic nuclear arms, was pending.

The Georgian crisis erupted in 2008, leading President Putin to order intervention in the regions of South Ossetia and Abkhazia as a result of Georgian and Ukrainian

⁷ BOESE, Wade. U.S. Withdraws From ABM Treaty; Global Response Muted. *Arms Control Today*. July/August 2002. <https://www.armscontrol.org/act/2002-07/news/us-withdraws-abm-treaty-global-response-muted> (accessed on 27/3/2022)

⁸ THALIS, Alexander. *Threat or Threatened? Russia in the Era of NATO Expansion*, Australian Institute of International Affairs. 3 June 2018. <https://www.internationalaffairs.org.au/australianoutlook/threat-or-threatened-russian-foreign-policy-in-the-era-of-nato-expansion/> (accessed on 28/3/2022)

⁹ BLANK, Stephen. Threats to and from Russia: an assessment, *Journal of Slavic Military Studies*, vol. 21, Issue 3 (2008), p. 519. For a more detailed study of the INF Treaty, we suggest reading CASTRO TORRES, José Ignacio. *Del tratado INF al START ¿El final de los acuerdos de No-Proliferación Nuclear?* IEEE Analysis Document 02/2019 http://www.ieee.es/Galerias/fichero/docs_analisis/2019/DIEEEA02_2019CASTRO-nuclear.pdf

rapprochement with NATO following the Bucharest summit and the recognition by many allied countries of Kosovo's independence. In reaction to Russia's intervention, US President G. W. Bush cancelled a civil nuclear agreement with Russia while providing economic aid to the Georgians¹⁰.

In 2009, Croatia and Albania joined NATO. The Allied presence in the area thereby strengthened its position in the Balkans and distanced Russia's influence over Serbia.

In 2010, during the Medvedev and Obama administrations, the New START treaty was signed for a period of 10 years, extendable for another five. Although the presidents were the signatories, Vice-President Biden and Prime Minister Putin were involved in this milestone event. The treaty basically limited both countries to the possession of 1,550 strategic nuclear warheads and 800 long-range delivery vehicles¹¹. During the ceremony, both dignitaries sought to conceal unease over the incidents in Georgia and the construction of a missile defence shield in Europe¹².

In 2014, a crisis erupted in Ukraine when the pro-Russian government of Viktor Yanukovich fell as a result of the Euromaidan protests. The rapprochement with Europe was contested by Russophile groups in Crimea and the Dombas area and seized upon by President Putin for an intervention that led to Russia's de facto retaking of Crimea and the split of the republics of Lugansk and Donetsk from Ukraine¹³. During that year, US disagreements about possible Russian violations of the INF Treaty were already more than manifest, the Russians allegedly taking advantage of loopholes in the treaty to develop missile technology that was outside the agreed limits¹⁴. The situation would worsen to the point where, in 2017, the annual US report on compliance with non-proliferation and disarmament treaties would accuse Russia of violating the INF, while

¹⁰ BAKER, Peter and BILEFSKY, Dan. Russia and U.S. Sign Nuclear Arms Reduction Pact. *The New York Times*. April 8, 2010. <https://www.nytimes.com/2010/04/09/world/europe/09prexy.html> (accessed on 27/3/2022)

¹¹ For more detailed information on the content and how this treaty was signed, we recommend reading CASTRO TORRES, José Ignacio. *El tratado New START: contener al elefante negro*. IEEE Analysis Document 02/2021.

http://www.ieeee.es/Galerias/fichero/docs_analisis/2021/DIEEEA02_2021_CASTRO_NewStart.pdf

¹² BAKER, Peter and BILEFSKY, Dan. Russia and U.S. Sign Nuclear Arms Reduction Pact. *Op. cit.*

¹³ KOFMAN, Michael, *et al.* *Lessons from Russia's Operations in Crimea and Eastern Ukraine*. Santa Monica, CA: RAND Corporation, 2017, p. 73-77.

¹⁴ GORDON, Michael R. U.S. Says Russia Tested Cruise Missile, Violating Treaty. *The New York Times*. 28 July 2014. <https://www.nytimes.com/2014/07/29/world/europe/us-says-russia-tested-cruise-missile-in-violation-of-treaty.html> (accessed on 27/3/2022)

Russia would accuse the US of the same for having deployed dual-capable anti-missile launchers in Eastern Europe¹⁵.

In mid-2015, Russia announced that it was suspending its participation in the CFE Treaty¹⁶. Although the Russians had not complied with the treaty since 2007, allied pressure over the Russian occupation of Transnistria, the Georgian crisis, and now the Ukrainian crisis may have tipped the Russian decision.

The US Nuclear Posture Review (NPR), issued by the Trump Administration in 2018, contemplated the possibility that the Russians could credibly deter or employ nuclear weapons. It proposed that they would respond gradually to the level of threat, due to their ability to employ different powers in their wide range of options. Moreover, this possibility of limited response was corroborated by the concept of "escalate to de-escalate", whereby the level of tension in a conflict could be raised to the point of deterring a potential hostile actor and then gradually lowered in accordance with Russian interests from a position of superiority¹⁷. Notably, the Biden Administration will be faced with task of drafting a new NPR based on the consequences of the Ukrainian conflict.

After a series of disagreements, the INF treaty was finally terminated in August 2019, marking a return to the possibility of deploying weapons of the type that had been withdrawn at the end of the Cold War on European territory. The situation was so worrying that the then German foreign minister, Heiko Maas, pointed out that Europe was now less secure than ever in what were becoming turbulent times¹⁸.

Although Russian military doctrines in 2000, 2010 and 2015 contemplated the use of nuclear weapons, it was not until 2020 that Russia first issued a specific nuclear policy. Under the name *Fundamentals of the Russian Federation's state policy in the field of nuclear deterrence*, this nuclear posture expresses the potential use of such weapons for

¹⁵ NERSISYAN, Leonid. If the INF Treaty dies, America and Russia could see an arms race, *The National Interest*. December 17, 2017. <https://nationalinterest.org/feature/if-the-inf-treaty-dies-america-russia-could-see-arms-race-23680> (accessed on 27/3/2022)

¹⁶ REIF, Kingston. Russia Completes CFE Treaty Suspension, *Arms Control Today*, April 2015. <https://www.armscontrol.org/act/2015-04/news-briefs/russia-completes-cfe-treaty-suspension#:~:text=Russia%20is%20suspending%20its%20participation,had%20largely%20abandoned%20in%202007> (accessed on 28/3/2022)

¹⁷ Office of the Secretary of Defence. *Nuclear Posture Review, February 2018*. US. Ministry of Defence, 2018, p. 8-9.

¹⁸ MAAS, Heiko. Security for Europe. Federal Foreign Office, 10/11/2019. <https://www.auswaertiges-amt.de/en/newsroom/news/maas-security-for-europe/2265218> (accessed on 28/3/2022)

the defence of Russia or its allies. As specific cases, he cites the circumstance of a conventional weapons attack against the Russian Federation, an existential danger against Russia, a ballistic missile attack against Russia or its allies, and an attack against a Russian state entity or military means that could compromise Russia's ability to respond with nuclear weapons¹⁹.

In May 2020, the US withdrew from the Open Skies Treaty, which authorised unarmed reconnaissance flights over other participating states, followed by Russia's announcement that they were doing the same in 2021. In the awkward circumstances in which both actors found themselves, their withdrawal was coherent given that the previous year the Americans had conducted an extraordinary flight over Ukraine and the Russians a reconnaissance flight over the western United States²⁰. 2020 was also the year of North Macedonia's NATO accession, which together with Montenegro's earlier admission in 2017 further strengthened the allied position in the Balkans²¹.

Negotiations for the renewal of the New START Treaty hit a rough patch in 2021 because President Trump, before leaving the White House, was seeking a tripartite agreement that would include China. When Biden became president he agreed to extend the treaty²². This gave the United States greater security because if nuclear tension escalated in Europe, it would not necessarily spill over into the US territories within reach of these weapons.

The Russian Security Strategy 2021 does not explicitly mention nuclear weapons, but it defines the US and its NATO allies as hostile actors. In this context of confrontation, the

¹⁹ Официальный интернет-портал правовой информации (Official legal information website). Указ Президента Российской Федерации от, 2/6/2020, Issue 355, Об Основах государственной политики Российской Федерации в области ядерного сдерживания (Decree of the President of the Russian Federation on 2 June 2020, Issue 355, On the fundamentals of the Russian Federation's state policy in the field of nuclear deterrence, 2/6/2020). <http://publication.pravo.gov.ru/Document/View/0001202006020040> (accessed on 26/3/2022)

²⁰ Nuclear Threat Initiative. Treaty on Open Skies, *NTI*. <https://www.nti.org/education-center/treaties-and-regimes/treaty-on-open-skies/> (accessed on 28/3/2022)

²¹ BECHEV, Dimitar and MARUSIC, Damir. *North Macedonia on the Threshold of Europe*. Atlantic Council. p. 13-14.

²² REIF, Kingston and BUGOS, Shannon. US, Russia extend New START for five years, *Arms Control Today*, vol. 51, Issue 2. 2021, p. 20-22.

West's hegemony is seen to be in decline, predicting that the West will fight fiercely to prevent this from happening, leading to situations of conflict²³.

The potential of nuclear forces and Russia's strategy

The developments described above made Russia realise that it was at a disadvantage vis-à-vis the Allies and that it had to renew its armaments to secure its immediate space and regain its credibility. As a result, in 2008 Russian Defence Minister Anatoly Serdyukov launched a recovery plan which, under the name "new style", aimed to build a smaller armed forces, but composed of units that were always at the ready²⁴. The armaments modernisation plan included a significant allocation for nuclear weapons, since NATO's deterrence could only be achieved with these type of weapons, justifying the maintenance of the three components of the strategic nuclear forces. Although a conflict between Russia and NATO was not foreseen, it could be triggered by NATO's interference in the other former Soviet republics²⁵.

In 2020, President Putin announced that the nuclear triad was then 86% modernised and that by 2021 it would be 88 percent modernised. The president justified this announcement on the grounds that the Americans had withdrawn from the ABM, INF, Open Skies and New START treaties and that the status of New START was very uncertain²⁶.

It is estimated that by early 2022 Russia will possess an arsenal of some 4,477 nuclear warheads, for both long-range strategic forces and shorter-range tactics. Of this arsenal, some 1,588 strategic warheads would be deployed, with 812 missiles as delivery vehicles, 576 of them assigned to submarines and 200 to air force bases. In addition, 977

²³ Официальный интернет-портал правовой информации. Указ Президента Российской Федерации от 2/7/2021, No. 400, О Стратегии национальной безопасности Российской Федерации (Decree of the President of the Russian Federation dated 2/7/2021, No 400, on the National Security Strategy of the Russian Federation, 3/7/2021).

<http://publication.pravo.gov.ru/Document/View/0001202107030001> (accessed on 1/4/2022)

²⁴ UN News. Численность ВС РФ сократится до 1 млн человек к 2012 году - Сердюков (The number of the RF Armed Forces will be reduced to 1 million people by 2012-Serdyukov). *Ria Novosti*. 8/10/2008. <https://ria.ru/20081008/152801708.html> (accessed on 28/9/2022)

²⁵ BARABANOV, Mijaíl; MAKIENKO, Konstantín; PUJOV, Ruslan. Военная реформа: на пути к новому облику российской армии (Military reform: towards a new image of the Russian army). дискуссионного клуба "Валдай" (Valdai discussion club). Moscow, 2012, p. 6-8-11 and 32.

²⁶ REGNUM. Путин проводит расширенное заседание коллегии Минобороны РФ (Putin holds an expanded meeting of the Board of the Ministry of Defence of the Russian Federation). 21/12/2020. <https://regnum.ru/news/polit/3146811.html> (accessed on 28/3/2021)

strategic warheads would be stockpiled alongside 1,912 non-strategic warheads. Furthermore, 1,500 warheads are reportedly awaiting decommissioning, but are relatively intact²⁷.

Regarding Russia's nuclear strategy, a debate has been opened on the use of this type of nuclear weapons. The 2018, the NPR may have wrongly assessed that the Russians intend to escalate a conflict, with the threat of using a nuclear weapon, and then de-escalate it under favourable conditions. If this were so, Russia would have to assume that the Western bloc would capitulate to its initial pressures. Consequently, a new school of thought has emerged, led by the former head of the US strategic command, General John Hyten, who claims that Russia's nuclear strategy is one of "escalate to win". This would mean that the Russians may threaten or launch a limited nuclear strike to avoid a conventional response against their forces and that the use of nuclear weapons would not be exclusively for the defence of their vital interests²⁸. Moreover, the reading of Russia's 2020 nuclear policy leaves the conditions for the use of nuclear weapons sufficiently open to interpretation.

If Russia's nuclear doctrine follows Hyten's thesis, coupled with the versatility of its nuclear weapon delivery vehicles and powers, a multiplicity of scenarios could emerge, each with specific characteristics. This would result in a wide range of possible scenarios for the potential use of such weapons, which in an environment of lack of information and poor communication would increase the likelihood of a nuclear scenario.

Another factor to take into account in a nuclear decision context is the character of the leaders who would manage the crises. The deployment of Russia's nuclear forces so far shows that decisions in this regard are not taken by President Putin without prior consultation, making the option of the autocratic leader who has lost touch with reality seem little convincing. The nuclear launch order procedure corroborates this mechanism, because of the three nuclear attachés or chegets (president, defence minister and chief of defence) at least two are needed to activate the system. Within this logic, it seems that the message conveyed so far in Ukraine is to dissuade the West from becoming directly

²⁷ KRISTENSEN, Hans M. and KORDA, Matt. Russian nuclear weapons, 2022. *Bulletin of the Atomic Scientists*, 77:2, 2022, p. 98-99.

²⁸ *Op. cit.*, p. 101-102.

involved in the conflict²⁹. It is more than likely that the Russians have an extensive catalogue of response options prepared in this regard, which they have only to adapt to the specificities of the unfolding events.

Nuclear drift and the Ukraine conflict

President Putin needed to ensure that Russia's intervention in Ukraine was not met with a direct response from actors outside the conflict. Among the measures he took, one of them was to showcase the possibility of the use of nuclear weapons in the event of Western countries becoming militarily involved. To this end, on 19 February, five days before the invasion, Russian strategic forces began an exercise to show the world their readiness.

This exercise demonstrated the command and control capabilities of these forces, as well as the possibilities of using long-range weapons by launching Sineva missiles from a submarine in the Barents Sea, Yars missiles from the Plesetsk Cosmodrome and cruise missiles from Túpolev Tu-95 aircraft, which hit the Kamchatka Peninsula. The capability of intermediate forces was also demonstrated from all types of platforms and with all types of missiles, the most prominent being the Iskander, Kalirb and hypersonic Kinzhal and Zirkon missiles³⁰.

When the invasion took place on 24 February, between the lines President Putin's speech clearly conveyed that his nuclear forces backed his intervention, given that he saw the situation in Ukraine as an existential threat, stating that "for our country it is a question of life and death, a question of our historic future as a nation. This is not an exaggeration; this is a fact. It is not only a very real threat to our interests, but also to the very existence

²⁹ VEN BRUUSGAARDMARCH, Kristin. Understanding Putin's nuclear decision-making, *War On The Rocks*, 22 Mar 2022. <https://warontherocks.com/2022/03/understanding-putins-nuclear-decision-making/> (accessed on 28/3/2022)

ШАРКОВСКИЙ Александр/SHARKOVSKIY Alexander. Учения сил стратегического сдерживания РФ должны остудить горячие головы западных ястребов, в противном случае нас ждёт война (The strategic deterrent forces exercises of the Russian Federation should cool down the exalted Western hawks, otherwise war awaits us). *Argumento*. 19 February 2022. <https://argumenti.ru/army/2022/02/760377> (accessed on 25/3/2022)

of our state and its sovereignty". President Putin also recalled that Russia remains one of the most dangerous nuclear states³¹.

Given these statements and the scenarios described in Russia's 2020 nuclear policy, the possibility of the use of nuclear weapons cannot be ruled out in an environment where, depending on how the situation in Ukraine develops, Russia may consider that there is a threat to its vital interests or those of its allies.

President Putin's spokesman Dmitry Peskov, who refused to rule out the use of nuclear weapons in the face of an "existential threat", expressed himself along these lines, although he did not go as far as to clarify where the red line of what Russia might consider to be vital interests lay³². As long as this lack of definition exists, there will be questions as to what could happen in the event of a miscalculation or misinterpretation between the nuclear actors.

Meanwhile, the Western bloc was trying not to send out signs of an escalation of the conflict that would lead to the contemplation of a nuclear situation. To this effect, US President Joe Biden did not increase the alert status of his nuclear forces and the Pentagon suspended a planned test of a Minuteman III intercontinental missile³³.

The most recent developments seem to indicate that at the operational level the results of Russia's intervention in Ukraine are not yielding the results expected by President Putin. It is worth considering whether, in the event of an adverse situation for Russia, the conflict could be escalated further to the use of a low-yield nuclear weapon or another type of disruptive weapon or weapon of mass destruction³⁴. It seems that this possibility is being taken very seriously, the NATO Secretary General Jens Stoltenberg stating that the Alliance will assist Ukraine with CBN defence equipment in the event of such an

³¹ PUTIN, Vladimir. Address by the President of the Russian Federation, *The Kremlin*. Moscow, February 24, 2022. <http://en.kremlin.ru/events/president/news/67843> (accessed on 26/3/2022)

³² MCGEE, Luke and CALZONETTI, Claire. Putin spokesman refuses to rule out use of nuclear weapons if Russia faced an 'existential threat', CNN. March 22, 2022. <https://edition.cnn.com/2022/03/22/europe/amanpour-peskov-interview-ukraine-intl/index.html> (accessed on 27/3/2022)

³³ STEWART, Phil and ALI, Idrees. U.S. delays ICBM test-launch in bid to de-escalate Russia nuclear tensions, Reuters. March 2, 2022. <https://www.reuters.com/world/us/us-delays-icbm-test-launch-bid-de-escalate-russia-nuclear-tensions-2022-03-02/> (accessed on 27/3/2022)

³⁴ BROAD, William J. The smaller bombs that could turn Ukraine into a Nuclear War Zone, *The New York Times*. March 21, 2022. <https://www.nytimes.com/2022/03/21/science/russia-nuclear-ukraine.html> (accessed on 27/3/2022)

aggression³⁵. To this should be added the possibility that as a consequence of the operations some kind of accident could occur in a nuclear facility, leading to a leakage of radioactive material.

In an environment of miscommunication and possible miscalculations and misinterpretations, other scenarios would also have to be considered, such as Putin, in unfavourable circumstances, perceiving a NATO country supplying arms to Ukraine as an existential threat. This was stated by Rose Gottemoeller, former NATO Deputy Secretary General, who considers the use of a tactical nuclear weapon by Russia a "serious possibility"³⁶.

In the meantime, the red line that could be perceived by the Allies is the non-involvement of NATO forces in the conflict. In this regard, US Senator Tim Kaine advocates sending whatever material is necessary, arguing that the aborted shipment of MIG-29s from Poland did not take place because it did not bring significant gains in relation to the risks involved³⁷.

A cyber-attack on Russian warning networks by a non-state actor is also a possibility that cannot be ruled out. If the Russians were to perceive a false threat of a missile launch on their sensitive targets, a disproportionate response from their nuclear forces could result³⁸. This concept, known as launch on warning, is expressly included in Russia's current nuclear policy.

Conclusions

The evolution of relations between the US and Russia regarding conventional and nuclear arms reductions has been a steady deterioration over the course of this century,

³⁵ STOLTENBERG, Jens. Press conference by NATO Secretary General Jens Stoltenberg previewing the extraordinary Summit of NATO Heads of State and Government, *NATO Press Service*. 23 March 2022. https://www.nato.int/cps/en/natohq/opinions_193610.htm (accessed on 27/3/02)

³⁶ BENDER, Bryan. How the Ukraine war could go nuclear, *Politico*. 3/24/2022. <https://www.politico.com/news/2022/03/24/how-ukraine-war-could-go-nuclear-00019899> (accessed on 27/6/2022)

³⁷ WARD, Alexander and FORGEY, Quint. Kaine: Fighter jets to Ukraine not the admin's 'red line', *Politico*. 3/23/2022. <https://www.politico.com/newsletters/national-security-daily/2022/03/23/kaine-fighter-jets-to-ukraine-not-the-admins-red-line-00019761> (accessed on 27/3/2022)

³⁸ BARRETT, Anthony. *False Alarms, True Dangers? Current and future risks of inadvertent U.S.-Russian nuclear war*. Santa Monica, CA: RAND Corporation. 2016. <https://www.rand.org/pubs/perspectives/PE191.html> (accessed on 27/3/2022)

with the exception of the extension of the New START treaty, which will have to be reconsidered before the 2026 deadline.

This situation places the Americans and the Russians in a position where it appears that the threat level that existed between the two powers has not been raised and leads to the attack on objectives in their respective national territories. The extension of the treaty is therefore understandable. This is not the case with the intermediate forces deployed in Europe under the INF Treaty, suggesting that the termination of this treaty could mean European territory becoming the chessboard for a macabre nuclear game.

The modernisation of Russia's nuclear forces allows its leaders to increase their ability to manage a multiplicity of options in a crisis, which can lead to an increased likelihood of success in conventional military operations. However, in the area of nuclear strategy, the multiplicity of options implies a greater likelihood of a decision to use nuclear weapons. To this must be added the logical lack of definition of the different states' nuclear policies, making it difficult to determine exactly where the red line is that could lead to a leap to taking a decision to use nuclear weapons.

Not only would such decisions be taken in an environment of uncertainty, but the lack of communication and understanding between opposing actors could lead to misinterpretations and miscalculations.

Russia's nuclear force alert has meant that the conflict in Ukraine can at least be described as the prelude to a nuclear crisis. This kind of posturing is a first step, preceding further escalation, which has sent a warning to the West about the degree of Russian tolerance for what it may see as interference in its actions.

It is unclear how the conflict will evolve, but what exactly Russian leaders mean by vital interests and existential threat must be considered, because the calculation for the conflict to escalate into a nuclear situation could occur at the moment of this perception. Irrespective of the outcome, mistrust between the actors involved has reached levels that will take many years to rebuild. In this context of mistrust, a new rearmament is taking place, with the two nuclear powers of the United Kingdom and France significant players on the European chessboard. The role of countries that could use US nuclear weapons

must also be considered, with Germany one of the most paradigmatic cases, given its proximity to the Russian border.

The appearance of new delivery vehicles, including hypersonic missiles, requires a rethink of allied missile defence and may lead to an increase in conventional forces and their protection to ensure the survivability of as many military units as possible. These will have to adapt their doctrine, training and materials to the new probability scenarios. Decision centres and command and control structures should be better protected and on stand-by to ensure continuity of operations.

It is possible that, in addition and depending on developments, civil defence and protection measures of the kind envisaged during the Cold War will have to be taken.

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