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Russia's new nuclear doctrine. Russian policy of deterrence

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Abstract

Objectives: The main purpose of the article is to address the issues arising from the new nuclear doctrine of Russia. An attempt to analyze the document is "Russia's Nuclear Doctrine" as a new tool for the Russian Federation's nuclear deterrent policy. The performance changes over the years in Russia's approach to the use of nuclear weapons in the new doctrine in the times of the Soviet Union in global terms, as well as in the micro-region of Central Europe, especially during the war in Ukraine.

Methods: The article is theoretical and descriptive. The main research methods and techniques included in the work are: analysis and synthesis of literature; comparative method; inductive and deductive method.

Results: An attempt was made to analyze the document "Russia's Nuclear Doctrine" as a new tool for the Russian Federation's nuclear deterrent policy. A presentation of how Russia's approach to the use of nuclear weapons has changed over the years.

Conclusions: The Russian approach to nuclear deterrent policy is changing and is often used as flexibly as Russia's policy towards the West is forged in a given situation - to build its own political interests. All this is very efficiently and sophisticatedly applied in society by means of propaganda and media controlled by the authorities, with which the rulers manipulate public opinion. According to the decree, the threshold for Russia's use of nuclear weapons remains unchanged and is relatively high. The essence of the Russian doctrine is the uncertainty of a potential adversary as to when it will be used.

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Introduction

Despite the financial crisis and economic sanctions, the Russian Federation is consistently, though not without difficulties, pursuing a large-scale modernisation programme for all branches of its armed forces. One of the priorities of the State Armaments Programme, is the modernisation of the strategic nuclear forces, which currently ensure the prestige of Russia and the country's position as a global power. The risk of a nuclear conflict (in particular involving the use of strategic ballistic missiles) in the context of the current Euro-Atlantic security environment, must be considered not only from a purely theoretical but also from a realistic point of view. From Moscow's perspective, nuclear weapons have been and continue to be of paramount political and military importance, primarily as a tool of exerting pressure on other states. In the context of the policy of Russia towards Ukraine, such a tool effectively protects Moscow against an open military confrontation. Strategic nuclear weapons (as opposed to non-strategic ones) are currently of secondary importance from a military point of view. In the event of a hypothetical war with NATO, Russia could choose to use strategic nuclear warheads only as a last resort, as both the US and Russia have enough warheads to destroy each other (under the so-called MAD doctrine[1]).[2]

The cost of maintaining a large nuclear arsenal has been a problem for both Russia and the United States over the past two decades. Since the 1960s, America has been gradually reducing its total number of nuclear warheads. The USSR started to do so only in the late 1980s. In recent years, Russia agreed to reduce the total number of strategic warheads and their carriers. However, it should be emphasised that the negotiations with the United States did not concern tactical nuclear weapons (non-strategic nuclear weapons). All bilateral (US-Russian) negotiations and later disarmament treaties, i.e. START-I, START-II, SORT and NEW START, were limited to establishing the maximum number of warheads and their carriers (i.e. intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs) and strategic bombers). Russia has categorically refused to enter into any negotiations concerning a reduction in the arsenal of tactical warheads, as these weapons are more significant in military terms from the Kremlin's point of view. The Russian Federation does not have

[1] **Mutual Assured Destruction (MAD)** – a military strategy doctrine, which posits that there should be a balance of power, whereby in the event of a nuclear conflict between two parties, both of them would annihilate each other. It is based on the deterrence theory, which stipulates that in order to avoid a potential attack, one should furnish oneself with an arsenal more powerful than that held by potential adversaries.

[2] Lipka R. Analyst of the Security and Defence Programme of the Casimir Pulaski Foundation. "Rosyjska triada nuklearna – propagandowa broń Kremla"

sufficient arsenal of conventional weapons that would ensure a balance of power in the event of a potential military conflict with NATO or China. What is equally important is Russia's economic potential and population compared to both the North Atlantic Alliance and the People's Republic of China.

1. The origins of the Soviet nuclear programme

The Soviet Union became the second country to acquire nuclear weapons. On 29 August 1949, the first Soviet atomic bomb, marked as RDS-1, was detonated at the Semipalatinsk test site.[3]

The Soviet nuclear programme developed relatively slowly. In the early 1940s, preliminary research was launched on the possibility of using fissile materials in the energy or weapons sector. At that time, Russia acquired (through espionage) the results of preliminary research into the use of nuclear fission carried out mainly in Britain, France and Germany. The German attack on the USSR in 1941 slowed down and later completely stopped the works, as researchers involved in the project were assigned to more urgent tasks. It was not until 1942-1943 that research was resumed, albeit to a limited extent. On 11 February 1943, Laboratory No. 2 was established. It was to become the most important research centre for the atomic programme. In 1945, with the progress of the American atomic programme (the Manhattan Project), the Soviet programme was given greater priority. The ultimate turning point was dropping of the atomic bomb on Hiroshima and Nagasaki. Realising the power of atomic weapons, Joseph Stalin ordered launching of large-scale programme to build a Soviet atomic bomb.

The bombs that fell on Hiroshima and Nagasaki were a signal to the USSR of impending changes on the political map of the world. The message was clear. Those who master the atom will rule the world. It became a priority for the USSR to obtain the knowledge needed to construct the weapons of the new era, which would not only allow it to catch up with the US in the arms race but, first and foremost, make it a military power. Under the guise of humanitarian aid, top Soviet scientists were sent to the explosion areas. Instead of providing aid, they concentrated on the effects of the explosion, remaining completely indifferent to the fate of the victims. After returning home, they submitted a detailed report, on the basis of which a decision was made. The Soviet Union was to create nuclear bomb at all costs, but this required an extensive theoretical and practical knowledge of atomic technology, which the Soviets

[3] RDS-1 was developed at the KB-11 (Arzamas-16) design bureau. The explosion took place on top of a 30-metre tower, set up on a test site near Semipalatinsk in Kazakhstan. The weight of the bomb was about 4 tons. According to official Soviet statistics, its explosive yield reached 22 kilotons, however, when tested by the method of shock wave measurement, the explosive yield was estimated at about 10 kilotons.

lacked due to the fact that such concepts as quantum physics or relativity theory were not compliant with the socialist ideology. Soviet intelligence had to steal the plans for the atomic bomb from Americans. It is believed this was achieved with the help of Klaus Fuchs, a German physicist and secret collaborator with the GRU, the Soviet military intelligence service. (Rzeczpospolita, 2019).

The intelligence agencies of Western countries, especially the US and Great Britain, assumed that Russians would not succeed with creating an atomic bomb until the early 1950s. Therefore, the 1949 test came as a surprise to them. As a result of the investigations carried out at the time, Americans uncovered a number of spies, some of whom had access to information related to the Manhattan Project, which was passes on to the USSR.

The Soviet authorities made a decision to establish a nuclear test site in Semipalatinsk. The official announcement was that this was done purely to preserve world peace. On 29 August 1949, the first atomic bomb test was carried out there. In order to realistically assess the effects of the explosion, mock-ups of residential areas, shelters, bunkers, an airport and even an underground station were erected. The explosion was 30 times more powerful than that at Hiroshima, and its effects shocked scientists. The sight after the explosion was terrifying. Everything was gone. Countless dead birds were lying around everywhere with their wings burnt. Sakharov described it in his memoirs in the following way: “Buildings swept away like a house of cards, the reek of splintered bricks, melted glass. When you see all this with your own eyes, something changes in you. To understand something in an abstract way is very different from feeling it with your whole being, like the reality of life and death.” The US intelligence called this test “Joe-1”. The bomb was a faithful copy of the American Fat Man plutonium bomb (Fig.1.). It became clear to the US that, in order to maintain its position, it must accelerate works on the country's own nuclear capabilities.

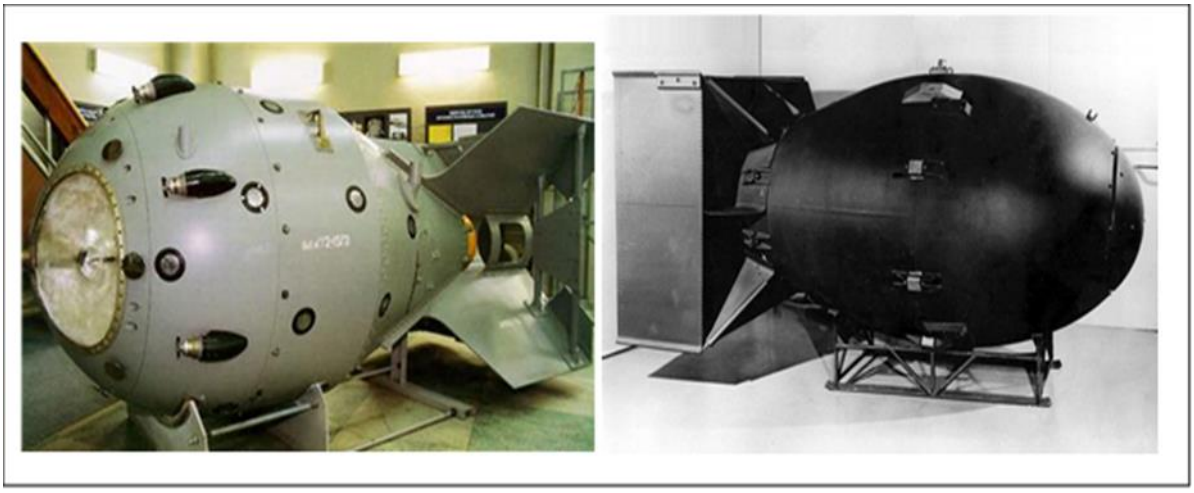

Fig.1. The first nuclear bombs: RDS1 on the left and Fat Man on the right.
Source:https://pl.wikipedia.org/wiki/Atak_atomowy_na_Hiroszim.Nagasaki#/media/Plik:Fat_man.jpg

The American response to the tests carried out by the USSR was Operation Ivy. On 1 November 1952, physicists Edward Teller and Stanisław Ulam conducted successful tests of the first hydrogen bomb, named Mike, at Enewetak Atoll in the Pacific Ocean. Its explosive yield was about 700 times the energy of the bomb dropped on Hiroshima and was so powerful that a section of the atoll evaporated and a crater nearly 2 km in diameter and 50 m deep was formed in its place.

American and Soviet nuclear tests fired the imagination of not only scientists, but also Khrushchev himself, who sought to explore the possibilities of nuclear power.

On 14 September 1954, manoeuvres under the cryptonym Snezhok were held at the Totskoye test site with the participation of Defence Minister Marshal Georgy Zhukov. The aim was to break the frontline with infantry corps and then counter-attack with nuclear weapons, destroying the enemy's defence. A 45,000-strong special unit was stationed on the test site. It was so secret that it did not even have a number. Officially, it did not exist. Heavy equipment was set up all over the area, trenches were dug, wire entanglement was laid out, buildings were erected and animals deployed. At 9.33 a.m., a bomb named Tatiana was dropped from a Tu-4 bomber onto the test site. The shock wave that wiped out everything on the surface was preceded by a loud bang and a blinding flash. 10 minutes after the explosion, on the orders of General Buganin, 45,000 troops passed through the epicentre of the blast and launched a sham assault. As reported in a few accounts, the soldiers were not informed that they were taking part in an exercise with an actual bomb. They were equipped with gas masks and other chemical protection equipment. As the temperature reached 45 degrees, many soldiers chose not to use it. They were deployed in shallow dugouts and trenches. As one of the soldiers

reported later: “I was told to hide my rifle underneath because the temperature might cause the barrel to bend. I thought: if the rifle can be destroyed, what about me? When the commanders left, I moved to a dugout next to a deep trench where sheep stood tied to stakes. The explosion caused severe burns on the animals. Their wool was burnt. Not even a trace was left of my trench. The blast had levelled the area. The whole ground was strewn with dead birds.” Hidden in the bunker, the marshal and the delegates watched the explosion and its aftermath through a periscope. No one was concerned about the Kazakh villages located about 5 km from the epicentre. Their residents were not informed about the exercise or the effects of the explosion.

Fig.2. Manoeuvres under the cryptonym Snezhok
Source:https://www.google.com/search?q=manewry+pod+kryptonimem+Snie%C5%BCok

2. How Russia's nuclear potential was developed

2.1 Land component of the strategic nuclear forces - the strategic missile forces

The formation of the strategic missile forces dates back to the second half of the 1950s. In 1956, the R-5M missile with a range of 1,200 km was introduced. It was the first Soviet missile adapted to carry nuclear weapons. In 1958, a demonstration of missile armaments was organised for the USSR authorities, which made a huge impression on the audience and resulted in the establishment on 17 December 1959 of the Strategic Missile Forces (RWSN - Raketnye voyska strategicheskogo naznacheniya). The end of the 1950s and the beginning of the 1960s saw a particularly intensive development of missile technology and its mass production. It was also during that period that ballistic missiles gradually started to take precedence over bombers. The former were also preferred by CPSU General Secretary Nikita S. Khrushchev, who supported their development at the expense of long-range bomber craft. In 1959, the first R-73 intercontinental missiles were introduced into service, followed by R-16 missiles designed by

M. Yangiel introduced in 1961. They had a range of 11,000-13,000 km and were the first missiles used operationally in larger numbers (26). As part of the ongoing arms race, along with the introduction of new types of ballistic missiles, special missile units were formed. Initially, it was the United States that had an advantage over the USSR in this area until the early 1970s. The contemporary Strategic Missile Forces (RWSN) were formally established in 1997, as a result of the reorganisation of the armed forces undertaken earlier. At that time, they were merged with the Russian Space Forces and the Space Missile Defence Forces. In turn, in 2001, two types of troops were created on their basis, RWSN and the Russian Space Forces. RWSN, being an independent type of troops, report directly to the Minister of Defence of the Russian Federation. Their main strike force consists of three Rocket Armies, with twelve Rocket Divisions (Ministry of Defence of the Russian Federation, 2013). A few years ago, the number of divisions was planned to be gradually reduced to eight or nine, but these plans were postponed in view of the aggravation of international relations between the East and the West.

In the final years of the USSR, the main weapons of RWSN were the RS-20 two-stage intercontinental ballistic missiles (other Russian designation: R-36, in NATO reporting name: SS-18 Satan). The R-36 version, launched in 1965, was systematically developed and modified. Due to the extent of the changes introduced, successive versions of these missiles, despite sharing a common name, were in practical terms completely new designs. In 1975, the modernised R-36M version was introduced, and from 1983 R-36MUTTCh was produced. The most recent version of the missile is the R-36M2 (RS-20W), which was introduced in 1988 and continues to be in service. It is Russia's largest and heaviest ballistic missile, with a length of 34.3m and an empty weight of 211 tons. Thanks to its powerful liquid-fuel engines, it can carry a payload of 8.8 tonnes to a distance of up to 11,500 kilometres, and up to 16,000 kilometres with lighter payload. According to the declaration of the Russian authorities, as at the end of 2012, there were 55 missiles in operational use (on combat duty) in silo launchers, each armed with 10 multiple independently targetable reentry vehicles (Ministry of Defence of the Russian Federation, 2013) with an explosive yield of 550 kilotons.

The latest type of land-based Russian ballistic missile is RS-24 Jars (SS-27 Sickle Mod. 2) on a mobile launcher. Test launch of these missiles was carried out in 2007, and from 2010 the RS-24 began to be introduced to service. In 2012, one of RWSN divisions had 18 of them in stock, and in 2015, according to earlier reports, three rocket divisions were equipped with

them. In formal terms, the missiles feature a new design that was developed in response to the US unilateral withdrawal from the ABM Treaty. [4]

Fig.3. RS-24 Jars ballistic missile (SS-27 Sickle Mod. 2) on a mobile launcher.
Source: https://missilethreat.csis.org/missile/ss-29/

According to a statement by RWSN commander, gen. S. Karakayev made in December 2012, Russia was conducting works on a completely new strategic 100-ton missile that will be able to evade any existing and future anti-missile system. It is to be propelled by liquid propellant engines and guarantee extremely precise strikes. The use of conventional warheads is also assumed, which, thanks to their precision, will allow for a more flexible use of the missile, not necessarily limited to nuclear deterrence. According to official announcements, these have been deployed since 2019, replacing the heavy multi-warhead SS-18 Satan, also known as Sarmat. Recently, the Russian president announced that Satan II missiles would be deployed into combat by the end of the year. According to the data of the Russian military, it has a range of more than 18,000 kilometres, which means it is able to reach targets both in Europe and the US. Russia's recent rhetoric has been belligerent. Putin expressed his satisfaction with the development of the Satan II missiles, and called the successful launch of the missile in April a “great and significant event” for the Russian defence industry. The Russian leader stated that it “will ensure the security of Russia from external threats”. At the same time, he added that: “...it will , make those who, in the heat of aggressive rhetoric,

[4] Under the terms of the START II treaty signed in Moscow on 3 January 1993 by the US and Russia, ballistic missiles with multiple independently targetable reentry vehicles (MIRVs) were prohibited. The Russian Duma ratified START II on 14 April 2000, but as early as 13 June 2002 withdrew from the treaty in response to the US withdrawal from the ABM Treaty. Russia perceived this as a threat to its nuclear deterrence potential, since it believed any anti-missile systems developed in the US could easily counter single-warhead missiles, thus upsetting the strategic balance of power. The introduction of new multi-warhead missiles is intended to minimise this threat, while at the same time acting as a form of pressure on the US during potential disarmament negotiations.

try to threaten our country, think twice." It should be emphasised that one Sarmat missile can carry 10 nuclear warheads. According to military experts, such a strike could destroy the territory of a large country the size of Britain, France or Poland. Russian commanders also boast that Satan II can evade missile defence systems. The commander of Russia's strategic missile forces, Colonel General Sergei Karakayev said in an interview with state television that an effective defence system against Sarmat II missiles is unlikely to be developed in the coming decades.

2.2 Air component of the strategic nuclear forces

The air component of the strategic nuclear forces is part of the Long-Range Aviation (ADD). ADD command reports to the Minister of Defence, while operational control is exercised by the Russian Aerospace Force Command. The main tasks of strategic aviation include destroying airbases, land-based missile complexes and enemy aircraft carriers and accompanying vessels. Secondary targets include military industrial facilities, administrative and political centres. The main armament of strategic aviation aircraft includes approximately 810 strategic cruise missiles with nuclear warheads. It is estimated that 200 - 300 of these are located directly at airbases close to the bombers, so that they can be immediately used (SIPRI Yearbook, 2013, p. 295). The remaining missiles are stored in central depots away from the carriers. The basic aircraft of strategic aviation is the Tu-95MS bomber (NATO reporting name: Bear H). In its original form, Tu-95 was introduced into service in 1957 and was designed for conventional nuclear bomb attacks on the territory of the US. With the rapid development of guided anti-aircraft missiles, it became almost impossible for a bomber to reach the location directly over the target.

3. Heavy bombers

Russia's strategic aviation units are part of the Long-Range Aviation of the Russian Aerospace Force and comprise two divisions of Tu-160 (Blackjack) and Tu-95MS (Bear H) aircraft, which are currently the central pillar of Russia's strategic bomber fleet. They are deployed in the Saratov region of south-eastern Russia and the Amursk region in Russia's Far East (Podvig, 2017).

According to some sources, Russia has between 60 and 70 bombers, 50 of which are regarded as compliant with the New START Treaty (Kristensen *et al*,2019). About 50 aircraft are Tu-95MS Bear bombers; the rest are Tu-160 Blackjack models. The former can carry up to 16 AS-15 (Kh-55) nuclear-armed cruise missiles, while the latter up to 12 AS-15

nuclear-armed cruise missiles. Both bombers can also carry nuclear gravity bombs, although experts contend that the bombers would be vulnerable to US or allied air defence during such a delivery mission.

Russia has recently modernised its bomber fleet, fitting them with a new cruise missile system, the conventional AS-23A (Kh-101) and the nuclear AS-23B (Kh-102). The production of the newer version of the Tu-160, which is expected to feature improved stealth characteristics and longer range, is expected for the mid-2020s. Experts believe that the fleet will then include around 50-60 aircraft, part of which is expected to be the new stealth bomber, known as the PAK-DA, as part of Russia's long-term plans (Kristensen *et al,*2019).

3.1 Strategic Russian Naval Forces

Submarine-launched ballistic missiles are part of the Russian Navy. Submarines equipped with ballistic missiles are part of the Northern Fleet, based in Severomorsk, Murmansk region, and the Pacific Fleet, based in Vladivostok (Podvig, 2017).

Strategic Naval Forces have ten strategic submarines of three different types: Delta, Typhoon and Borei class. Some of them are no longer operational. The last Typhoon class submarine serves as a test bed for launching Bulava missiles, which are deployed on the Borei class submarines. The Delta and Borei class submarines can carry 16 SLBM missiles each, with multiple warheads per missile, and with a total maximum load exceeding 700 warheads. However, as Russia reduced the number of nuclear warheads in some missiles in order to comply with the 2010 New START treaty, the submarine fleet can carry only up to 600 warheads (Kristensen *et al,*2019).

Most submarines in the Russian fleet are the older Delta class models, including one Delta III and six Delta IV submarines. The most recent one of these was built in 1992, and is now deployed in the Russian Northern Fleet. The older Delta submarines are equipped with three-warhead SS N-18 missile, while the Delta IV submarines are equipped with a four-warhead SS-N-23 missile. An improved version of this missile, known as the Sineva system, entered service in 2007. Another modification, known as the Liner (or Layner), is estimated to carry up to 10 warheads (Podvig, 2017).

In 1996, Russia launched the construction project of a lead ship in the Borei ballistic missile submarine (SSBN) class. According to public reports, after several delays, the vessel joined the Northern Fleet in 2013 as lead ship. Russia is planning to ultimately deploy 10 Borei submarines, five in the Pacific Fleet and five in the Northern Fleet. There are currently three submarines of this type in service, all deployed in the Northern Fleet. Another five vessels

are at “various stages of construction” (Kristensen et al,2019). The last five submarines will be an upgraded version, named Borei-A/II. The first of these has recently completed its sea trials. Russia is planning to finish the construction of the first eight vessels by 2023 and the remaining two by 2027. Borei submarines can be equipped with 16 SS-N-32 Bulava missiles, each of which can carry six warheads. The development of Bulava missiles was launched in the late 1990s. Following numerous tests, as well as a series of setbacks, it finally entered service in 2018 (Podvig, 2017).

3.2 Nonstrategic nuclear weapons

Russia has a variety of delivery systems that can carry nuclear warheads to shorter and intermediate ranges. These systems are generally referred to as nonstrategic nuclear weapons, and they do not fall in the scope of the U.S.-Soviet or U.S.-Russian arms control treaties. According to unverified reports, Russia has a number of nuclear missiles available for use by its “naval and tactical air forces, as well as short-range ballistic missiles”. Russia is reportedly engaged in modernisation projects, the aim of which is to “phase out Soviet-era weapons and replace them with newer versions.” Unconfirmed estimates put the number of warheads assigned to non-strategic nuclear weapons at 1,830 (Hans *et al,* 2019).

Recent analyses indicate that Russia is modernising both the existing types of short-range delivery systems that can carry nuclear warheads, as well as introducing new versions of weapons that have been part of the Soviet/Russian arsenal since the last years of the Cold War.

In May 2019, Lt. Gen. Robert P. Ashley of the Defense Intelligence Agency (DIA) raised this point in a public speech. He stated that Russia has 2,000 nonstrategic nuclear warheads and that its stockpile “is likely to grow significantly over the next decade.” He added that: Russia is adding new military capabilities to its existing stockpile of nonstrategic nuclear weapons, including those employable by ships, aircraft, and ground forces. These nuclear warheads include tactical-range systems in the theatre of military operations that Russia relies on to deter and defeat NATO or China in a conflict. Russia's stockpile of non-strategic nuclear weapons is already large and diverse and is being upgraded to achieve greater accuracy and longer range to adapt them to their potential role in combat. It is estimated that Russia already has dozens of such systems deployed or under development. These include, without limitation: short- and close-range ballistic missiles, cruise missiles, including the 9M729 missile, which the US government has deemed to violate the Intermediate-Range Nuclear Forces or INF Treaty. Russia is deploying its new delivery systems in strategic areas. Many

of Russia's short- and medium-range missile systems, including: the sea-launched Kalibr cruise missiles and the Iskander ballistic and cruise missiles are dual-purpose missiles, which can carry both nuclear and conventional warheads. This is also likely true of the new 9M729 land-based, ground-launched cruise missile that the US has deemed to violate the 1987 INF Treaty (Woolf, 2019)

It is not clear why Russia maintains and may be expanding its stockpile of non-strategic nuclear weapons. Some argue that these weapons serve to bolster Russia's less capable conventional military forces and assert that as Russia develops more capable advanced conventional weapons, it may limit its nonstrategic modernisation programme and withdraw more of these weapons than it acquires. Others, however, see Russia's modernisation of its nonstrategic nuclear weapons as complementary to an "escalate to de-escalate" nuclear doctrine and argue that Russia will expand its nonstrategic nuclear forces as it raises the profile of such weapons in its doctrine and military plans.

4. Russia's doctrinal approach to the use of nuclear weapons. Russia's evolving nuclear doctrine.

The Soviet Union regarded nuclear weapons as important both in terms of its potential role as an instrument of political pressure and its military application. From a political point of view, nuclear weapons served to raise the status of the Soviet Union, while nuclear parity with the United States gave the Soviet Union greater prestige and influence on the international arena.

From a military perspective, in turn, the Soviet Union regarded nuclear weapons to be instrumental in its strategic plans for military operations that would ensure its victory in a conventional war that would eventually escalate into a nuclear war. One of the leading Russian analysts wrote: "…For the first quarter century of the nuclear age, the fundamental assumption of Soviet military doctrine had been that if a global war was unleashed by the 'imperialist West', the Soviet Union would defeat the enemy and achieve victory, despite enormous ensuing damage…" (Arbatov, 2017).

Soviet views on nuclear weapons gradually evolved with the increasing involvement of both the US and the Soviet Union in arms control negotiations following the 1962 Cuban Missile Crisis.

During the 1960s, both countries recognised the reality of the concept of "Mutually Assured Destruction" (MAD) - a situation in which both sides had nuclear retaliatory capabilities that prevented either side from prevailing in an all-out nuclear war. According

to analysts, neither side could initiate a nuclear war without facing the certainty of a devastating retaliatory attack from the other side, as provided for in agreements negotiated during the Strategic Arms Limitation Talks (SALT). With the signing of the 1972 Anti-Ballistic Missile (ABM) Treaty, both sides accepted restrictions on their ability to defend themselves from a retaliatory nuclear attack, thus reducing the incentive for either side to engage in a nuclear first strike.

The Soviet Union offered rhetorical support for the non-use of nuclear weapons throughout the 1960s and 1970s. At the time, such an approach placed the Soviet Union on a moral high ground with the non-aligned states during negotiations on the Nuclear Non-Proliferation Treaty. The United States and its NATO allies refused to adopt a similar pledge, opting instead for a "flexible response" that allowed for the potential use of nuclear weapons in response to a massive conventional attack by the Soviet Union and its Warsaw Pact allies. Most American analysts, however, doubted whether the support declared by the USSR for the non-use of nuclear weapons actually changed Soviet military strategy, even given the superiority of the Warsaw Pact in terms of conventional forces along the Central European front, which meant that the Soviet Union would not necessarily need to resort to the use of nuclear weapons (Podvig, 2008).

In addition, many US analysts specialising in Eastern Europe security feared that the Soviet Union might launch a surprise attack on US territory, even with no escalation of the conflict in Europe. Other military analysts believed that the Soviet Union would not initiate such an attack, and likely lacked the capability to launch a disarming attack against US nuclear forces, aimed at undermining the effectiveness of a US retaliatory strike. Instead, it was prepared to launched missiles with nuclear warheads as a retaliatory strike after the initial nuclear detonations on the territory of the USSR. Many believe that, in practical terms, it is only the latter retaliatory strikes that the Soviet Union was actually planning (Podvig, 2019).

Regardless of the above, some scholars argue that Soviet leaders probably retained the option of a first strike against the United States. The development by the US of ballistic missiles with improved accuracy raised concerns of the Soviet Union about the ability of Soviet retaliatory forces to survive a US attack. For Soviet leaders, the increasing vulnerability of Soviet missile silos called into question the stability of the mutual deterrence balance and possibly forced the USSR into arms control negotiations with the United States (Brendan, 2017).

In 1982, General Secretary Leonid Brezhnev officially announced that the Soviet Union would not be the first country to use nuclear weapons in a conflict. When Brezhnev formally announced the no-first-use policy policy of the USSR in the 1980s, the actual Soviet military doctrine became more consistent with the declared nuclear doctrine that the Soviet military had been hoping to keep a conflict in the European theater conventional. Moreover, by the end of the decade, especially in the aftermath of the accident at the Chernobyl Nuclear Power Plant, Soviet leader Mikhail Gorbachev became convinced that the use of nuclear weapons would would consequently lead to catastrophic consequences.

Russia changed and adjusted the Soviet nuclear doctrine to adapt it to the circumstances of the post-Cold War world. In 1993, Russia explicitly rejected part of the Soviet Union's no-first-use committment due to the weakness of its conventional forces at the time. As a result of internal and external events related to the collapse of the Eastern Bloc and the changes that had taken place in terms of the global balance of power, Russia revised its military doctrine and the concept of national security several times over the past few decades. Subsequent versions introduced in the 1990s seemed to rely more on nuclear weapons as a tool of deterrence, as evident in the National Security Concept issued in 1997, which allowed the use of nuclear weapons "in the event of a threat to the existence of the Russian Federation as an independent sovereign state". The military doctrine, published in 2000, expanded the list of circumstances under which Russia could use nuclear weapons, including in response to attacks with weapons of mass destruction against Russia or its allies, as well as in response to "large-scale aggression using conventional weapons" and in situations "critical to the national security of the Russian Federation" (Sokov, 1999).

These changes in the approach to defence policy raised questions as to whether Russia would use nuclear weapons as a pre-emptive measure in a regional war or use it only in response to the use of nuclear weapons in a large-scale conflict of a global nature. In mid-2009, Russian Security Council Chairman Nikolai Patrushev suggested that Russia would be prepared to launch a "pre-emptive nuclear strike against an aggressor attacking with conventional weapons in an all-out, regional or even local war" (Nowak, 2009).

However, the updated version of Russia's military doctrine of 2010, did not provide for the pre-emptive use of nuclear weapons. Instead, it read that "the Russian Federation reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and/or its allies, as well as in the event of aggression against the Russian Federation with the use of conventional weapons when the very existence of the state is threatened. Compared to the version of 2000, which allowed for the use of nuclear

weapons “in situations critical to the national security of the Russian Federation”, this change seemed to narrow the conditions for nuclear weapons use. Russia's stance on nuclear weapons in its 2014 military doctrine is - to a large extent - similar to that of the 2010 doctrine.

On 2 June 2020, the Russian government published a document relevant to the perception of Russia as a nuclear power, outlining its national nuclear deterrence policy. The document entitled “On Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence” was approved for publication by an executive order signed by Russian President Vladimir Putin. Its official English translation was published by the Russian Foreign Ministry on 8 June 2020.

The document serves largely to reinforce the conventional understanding of Russian nuclear policy, and does not contain any unexpected new statements as to the role of nuclear weapons in the country's national defence strategy. The document is unprecedented in the sense that it was made public in contrast to previous versions that had likely existed, but had been kept secret. Although public statements on the role of nuclear weapons in Russia's strategy had been included in the country's military doctrine, they had never been as detailed.

It is also worth paying attention to the timing of the publication. It was published just seven months before the expiry of the 2010 US-Russia Strategic Nuclear Arms Reduction Treaty. The US continues to opt for an extension of this treaty, although Russia suggests unconditional five-year extension. No agreement has been reached between the two states, including with respect to the 1987 Intermediate-Range Nuclear Forces Treaty.

The document serves largely to reinforce the conventional understanding of Russian nuclear policy, and does not contain any unexpected new statements as to the role of nuclear weapons in the country's national defence strategy. Its unprecedented nature lies in the fact that it was made public in contrast to previous publications that had likely existed, but had not been generally available. Public statements on the role of nuclear weapons in Russia's strategy had been included before in the country's military doctrine, but they had never been as detailed. Washington accused Russia that its nuclear policy contained dangerous agendas, possibly including plans to introduce nuclear weapons into conventional conflicts by seeking de-escalation on terms favourable to Moscow (an “escalation to de-escalation” strategy, as it is frequently named). This approach was defined in the Nuclear Posture Review conducted by the Trump administration in 2018 on Russia's nuclear strategy:

It is worth pointing out that the aforementioned document issued by Russia on its policy on nuclear deterrence, outlines the threats and circumstances under which Russia would resort to using nuclear weapons. The document makes it clear that Russia “considers nuclear weapons exclusively as a means of deterrence”. It explicitly states that Russia’s nuclear deterrence policy

is defensive by nature, it is aimed at maintaining the nuclear forces potential at the level sufficient for nuclear deterrence, and guarantees protection of national sovereignty and territorial integrity of the state, and deterrence of a potential adversary from aggression against the Russian Federation and/or its allies. It emphasises that Russia maintains forces that could: "inflict guaranteed unacceptable damage on a potential adversary in any circumstances" (Nowak, 2009). However, it should be noted that the mentioned statement of Russia's official position on nuclear deterrence policy does not change its current military doctrine. What is also worth pointing out is the identification of the range of threats to be deterred by Russia's nuclear forces, clarification of Russia's approach to nuclear deterrence and listing conditions under which Moscow may resort to escalation, including the use of nuclear weapons. Given Russia's nuclear stockpile of approximately 4,310 warheads and deteriorating relations between Moscow and the West, these issues are crucial for global peace and security.

The aforementioned document lists a number of threats that Russia might face and circumstances under which it might consider the use of nuclear weapons. It indicates that Russia could respond with nuclear weapons when it has received "reliable data on a launch of ballistic missiles attacking the territory of the Russian Federation and/or its allies" and in response to the "use of nuclear weapons or other types of weapons of mass destruction by an adversary against the Russian Federation and/or its allies." It may also respond with nuclear weapons following an "attack by an adversary against critical government or military facilities of the Russian Federation, which would undermine nuclear forces response actions" and "aggression against the Russian

Federation with the use of conventional weapons when the very existence of the state is in jeopardy" (Nowak, 2009). As with previous official statements, this document does not call for the pre-emptive use of nuclear weapons during conventional conflicts. However, this does not give a clear answer to the question whether Russia would choose escalation and the use of nuclear weapons if it became apparent that it was losing a conventional war. The document emphasises that "in the event of a military conflict, this Policy provides for measures preventing an escalation of hostilities and their termination on terms that are acceptable for the Russian Federation and/or its allies" (Sokov, 2020). It can therefore be assumed with a high degree of probability that Russia may threaten to use nuclear weapons as a means of stopping a conflict that threatens the existence of the state.

Russia's public statements or its declaratory policy on nuclear deterrence offers insight, especially for US analysts, into how the role of nuclear weapons has evolved in Russia over

time in response to technological progress. International challenges to Russia's security have caused changes in the country's approach to deterrence policy, as well as internal debates in Moscow concerning its military policy and the best way to ensure reliable nuclear deterrence capability. Despite certain similarities with the deterrence policy of the United States, such as maintaining a nuclear triad to address threats to the survivability of land-based forces and considering limited nuclear options to deter further escalation or de-escalate a conflict, important elements of Russia's approach to nuclear deterrence are unique.

5. Security concerns

Analysts point out several factors that contributed to Russia's growing reliance on nuclear weapons during the 1990s. First, with the collapse of the Soviet Union and subsequent economic crisis in Russia. Under such circumstances, Russia no longer had the resources to support large, effective and modern conventional military forces. Conflicts in the Russian region of Chechnya, as well as in neighboring Georgia in 2008 highlighted the weakness of Russia's conventional armed forces. Moreover, Russian analysts noticed emerging threats in other neighbouring post-Soviet states. Many of them believed that even by implicitly threatening that it might resort to nuclear weapons, Russia was hoping it could enhance its ability to deter NATO interference in such regional conflicts. An example of this is the ongoing war in Ukraine, in the case of which President Putin as well as other leading politicians responsible for Russia's politics and security are explicitly expressing their readiness to use nuclear weapons as a response to Western interference in the war.

Russia's sense of vulnerability (albeit often feigned) and its perception that its security is under increasing threat also stems from the enlargement of NATO. Russia has long feared that an expansion of the alliance would pose new challenges to Russia's security, particularly if NATO were to place nuclear weapons closer to Russia's borders. These concerns were behind the statement in the 1997 doctrine that Russia might use nuclear weapons if the survival of the state was threatened.[5] However, when viewed in this way, Russia's approach to the aforementioned threats provides it with an ideal pretext to spread propaganda its own needs and to indoctrinate Russian citizens, provoking hostility towards the West, as recent social surveys seem to confirm.

The potential threat from NATO has been a concern to Russia and an important factor for shaping its international policy, as well as the need to rebuild the status of Russia

[5] For information on the evolution of Russia's external threat perception and its views on nuclear weapons, see Stephen Blank, editor, Russian Nuclear Weapons: Past, Present, Future (U.S. Army War College, 2011).

as a superpower and develop the potential of its conventional armed forces. It should also be noted that Russia perceives the deployment of foreign military contingents on the territories of neighbouring states of the Russian Federation and its allies (on NATO's Eastern Flank), as well as in neighbouring waters (NATO now includes states that were part of the Warsaw Pact) as a significant threat to Russian sovereignty. It is also concerned about the deployment of US missile defence systems in Poland and Romania and at sea near Russian Territory as part of the European Phased Adaptive Approach (EPAA).

Russia's large arsenal of non-strategic nuclear weapons and dual-purpose systems, as well as its recent statements made to remind the West of the strength of Russia's nuclear deterrence capabilities, is intriguing and allows to assume that Russia has increased the role of nuclear weapons in its military strategy and strategic military planning. It should also be noted that prior to Russia's invasion against Ukraine in 2014, some analysts argued that Russia's non-strategic nuclear weapons did not have a "clearly defined purpose and significance" (Adamsky, 2014). However, subsequent Russian statements and with military exercises with simulations of the use of nuclear weapons against NATO member states, led many to believe that Russia could threaten to use its non-strategic short-range nuclear to coerce or intimidate its neighbours. Such a nuclear threat could occur before or during a conflict, should Russia perceive that it is under threat and the use of nuclear weapons could lead its adversaries, including the United States and its allies, to withdraw. This is evident in the ongoing conflict in Ukraine, in the case of which the nuclear scenario cannot be ruled out, especially as the actions and approach to this conflict by Putin as and military commanders are often irrational and unpredictable.

Some analysts argue that Russia has adopted the principle of "escalate to de-escalate" in its nuclear doctrine. They claim that, if faced with the likely defeat in a military conflict with NATO, Russia may threaten to use nuclear weapons to force NATO to withdraw from the battlefield. (John *et al,* 2018). Trump administration officials held such a view, which stemmed from the 2018 Nuclear Posture Review. However, Russia does not use the term "escalate to de-escalate" in all versions of its military doctrine, and it is debated whether this concept accurately reflects Russian stance on nuclear weapons. Currently it is open to question whether Russia might use nuclear weapons to a limited extent in the event that the progress of Russian military in the conflict with Ukraine does not yield the expected results and the situation on the front-line, as a result of assistance provided by the West, would tip the scale for Ukraine. Future will show whether this is a realistic threat or not.

Contradictory statements by Russia have caused confusion among US analysts as to the circumstances under which Russia could use nuclear weapons. During presidential

address to the Federal Assembly in March 2018, President Putin appeared to confirm the important role of nuclear weapons in Russia's military doctrine:

"I should note that our military doctrine says Russia reserves the right to use nuclear weapons solely in response to a nuclear attack, or an attack with other weapons of mass destruction against the country or its allies, or an act of aggression against us with the use of conventional weapons that threaten the very existence of the state. This all is very clear and specific. As such, I see it is my duty to announce the following. Any use of nuclear weapons against Russia or its allies, weapons of short, medium or any range at all, will be considered as a nuclear attack on this country. Retaliation will be immediate, with all the attendant consequences. There should be no doubt about this whatsoever." (*President of Russia*, 2018).

This statement is in line with the conditions outlined in the 2020 document "On Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence". Putin and other high-ranking Russian officials have made extensive use of what some Western analysts describe as a "nuclear message" following Russia's annexation of Crimea and escalation of the conflict in eastern Ukraine. Their references to Russian nuclear capabilities appeared to be an attempt to signal to the West that the stakes in the shifting global balance of power are higher for Russia than for the West and that Russia is prepared to make every effort to protect its interests (Durkalec, 2015).

On other occasions, however, President Putin presented a more restrained view on the importance and role of nuclear weapons. In 2016, Putin stated that "brandishing nuclear weapons is the last thing to do. This is harmful rhetoric, and I do not welcome it." He also rejected suggestions that Russia was considering the use of nuclear weapons in offensive actions, stating that "nuclear weapons are a deterrent and a factor of ensuring peace and security worldwide. It should not be considered as a means in any potential aggression, because it is impossible, and its use, would probably mean the end of our civilisation" (*President of Russia*, 2016).

In October 2018, President Putin made a statement that some analysts interpreted as potentially signalling the adoption of an "exclusive purpose" doctrine, which posited that Russia would only resort to nuclear weapons in response to the use of nuclear weapons by others (Krepon, 2018). Putin declared:

Our nuclear weapons doctrine does not envisage a preemptive strike. Our concept is a retaliatory-offensive strike. This means we are prepared to, and will use, nuclear weapons only when we are convinced that someone, a potential aggressor, is attacking Russia, our territory [with nuclear weapons]... Only when we know for certain — and this takes only a

few seconds to understand — that Russia is being attacked. Of course, this amounts to a global catastrophe, but I would like to repeat that we cannot be the initiators of such a catastrophe" (*President of Russia*, 2018).

However, as mentioned above, the 2020 document "On Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence" provides for a wider range of circumstances, including attacks on nuclear command and control systems and centres, and attacks with other weapons of mass destruction, which could result in a Russian nuclear response.

Conclusions

As has been demonstrated in this paper, the Russian approach to nuclear deterrence policy is changing and is often used with flexibility, depending on Russia's policy towards the West at a given moment, in order to secure its own political interests. It is exploited with great skill and sophistication in propaganda spread in the media, mastered by those in power to manipulate public opinion.

The question is - What is the threshold for the use of nuclear weapons in Russia's doctrine?

According to the executive order, the threshold for Russia's use of nuclear weapons has not changed and remains relatively high. Just like in the case of any nuclear power, the essence of Russian doctrine is to keep ambiguous the circumstances of the use of such weapons. For this reason, the executive order deliberately keeps it vague as to whether and under what conditions Russia might decide to launch a pre-emptive attack to de-escalate a potential conflict. It is also unclear which states are regarded as Russia's allies, in the defence of which Moscow may decide to use its nuclear potential. Their list may be open-ended and include countries outside the post-Soviet zone. At the same time, Russia's actual nuclear doctrine may turn out to be different from that outlined in the executive order - numerous Russian strategic documents (e.g. the 2016 Foreign Policy Concept) include declarations that are not in line with actual Russian policy.

The aforementioned document provides yet another confirmation that there is a continuity in Russian strategic and operational thinking between the use of conventional and nuclear forces. At the same time, apart from being part of Russia's strategic communication, it can also be considered part of the information war waged against NATO. The executive order is aimed to increase divisions within the Alliance over actions that Russia perceives as a threat, particularly in Central and Eastern Europe. By indicating that potential threats could lead to a situation where Russia would resort to the use nuclear weapons, Moscow attempts to put pressure on NATO and the US to revise their plans in a way that is favourable to Russia,

strengthening its advantages (including in terms of conventional forces) over the countries on NATO's eastern flank.

The Russian Federation is acutely aware that NATO as a whole is a great power to be reckoned with. For Putin, however, it is not statistics that count, but actual power. The alliance still needs to improve numerous aspects of its defence systems, not only on the eastern flank. As a result of Russia's military involvement in the armed conflict in Ukraine, the West has been given time which it must put to good use. The societies of NATO's member states must realise that if they want to remain prosperous and independent, they must be prepared to make sacrifices (Kozerawski, 2022).

In 2022 Russia has been testing the North Atlantic Alliance and the unity of the West also on an unprecedented scale. It is attacking and destroying Ukraine, threatening Lithuania over Kaliningrad, and regularly violating Estonia's airspace. Russian politicians and the Kremlin-controlled media are publicly analysing various scenarios, including nuclear war. On the other hand, however, as Putin's critics emphasise, in strategic and political terms, Russia is losing the war in Ukraine, and in military terms it is failing to achieve all of its goals.

Russia is an “unpredictable player” when dealing with such an adversary as NATO and the West should consider every scenario, even one that seems relatively unlikely. At this point, the Russian Federation has no resources to expand military operations beyond Ukraine, which does not mean that it could not use provocation and a whole range of different means in a hybrid conflict below the threshold of war. In military terms, the Russian Federation is stuck in Ukraine. The more support Ukraine will receive from the West, the more difficult it will be for the Russian Federation to end the conflict by announcing its success in the operation.

Benefits of transparency

It is unlikely that the publication of the "On Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence” put an end to the possible concerns of Asian countries, mainly China, about Russia's nuclear capabilities and intentions. Although the document clarifies certain aspects of Russian nuclear policy, it remains ambiguous in other respects, for example with regard to the use of nuclear weapons in response to a conventional attack. In the absence of symmetrical steps by other nuclear states aimed at dispelling uncertainty about their nuclear policy, it will be difficult to expect Russia to take unilateral steps to make its nuclear policy more transparent. The new document is unlikely to have a direct impact on the strategic stabilisation of relationship between Russia and other nuclear states. This would

require great transparency and confidence at bilateral and multilateral levels. It may, however, help Russia avoid sending mixed signals to other countries about its nuclear plans and intentions.

Looking ahead to the future

The debate concerning Russian nuclear intentions is unlikely to end with the publication of Russia's new statement on its deterrence policy - nor should it, since both the United States and Russia consider the concept of nuclear deterrence as fundamental to their national security. Nevertheless, attention should be paid to Russian statements and publications, and declarations by Russia's leading politicians, including President Putin, should be analysed in detail. A more forward-looking approach would be desirable to prevent Russia from imposing policies that are favourable to it. A better understanding of Russian point of view and intentions will help to make critical analyses of nuclear policy challenges that the United States and its allies will have to face.

It is doubtful that the document "On Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence" will resolve the current deadlock in the negotiations on nuclear arms control, although it might help in this respect. The document mentions that Russia's nuclear deterrence principles are in line with its arms control commitments and international law. However, now that the tensions between Moscow and the West are escalating, it is difficult to predict how Russia will react as the conflict in Ukraine continues.

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