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Putin's Weapons Show Just hot air from Moscow?

by Wolfgang Rudischhauser

At first glance, the show did at least achieve an impressive effect: On 1 March, in front of approximately 1,000 leading politicians, government representatives and so-called “ordinary citizens”, Russia’s President Vladimir Putin presented several new weapon systems and what he called “invincible nuclear weapons” that can allegedly breach any US missile defence system. But what is the story behind Putin’s “miracle weapons” and his desire to once again “make his voice heard” in the West? What should the West really be prepared for and what looks more like compute-generated imagery? A thorough analysis shows that Putin’s announcements aren’t quite so impressive.

Election campaigning?

First off, we should ask ourselves why Putin made these announcements specifically at this juncture. It is not unreasonable to conclude that the timing may have something to do with the recent election campaign in Russia. Normally, Russia’s President holds his annual “Address to the Federal Assembly of the Russian Federation” in December, shortly before the Russian celebrations of Christmas and New Year. This year, however, the speech was postponed several times, right up to shortly before the presidential elections in March. Much of the speech focused on his government’s achievements in the areas of domestic and economic policy, which accordingly resulted in some boredom among listeners. It was not until the announcement of new weapon systems that the audience exhibited more signs of enthusiasm, as this served as a distraction from domestic difficulties. This was certainly not a coincidence.

Secondly, US President Trump had presented a new national security strategy and a new nuclear strategy for the United States shortly after the beginning of 2018. He underlined that his “America First” policy also applied to the area of defence. Although Russia (and China) are not defined therein as “enemies”, they are described as key challenges for US security and as strategic competitors. The US Government therefore announced appropriate responses. President Obama still had called Russia a “regional power”, thus playing down its importance. Trump, on his part, for now seems to have failed in his attempt to place relations with Russia on a new footing, both domestically and in terms of foreign policy. It was therefore only a question of time before Russia would show with strong words and by means of action (for instance through its activities in Syria) that it wants to be seen on equal footing with the United States. The strategic communication was therefore mainly targeted at political players in the West, notwithstanding the domestic audience of course.

Reality check for the announcements: fake news vs real news

Putin's weapons show featured presentations of various systems that require to be looked at separately. One of these systems is the new RS-28 "Sarmat" intercontinental missile, which is said to have a long range and is described as capable of carrying between 10 to 24 warheads. The missile, known to Western defence experts for some time, is intended as a replacement for the old R-36M missile developed in Ukraine. Several analysts have described it as a further development of this older missile.¹ The RS-28 is referred to as "Satan 2" in NATO jargon, and was publicly advertised by Putin already in 2016 as an ongoing new development. Putin claimed that the Sarmat was successfully tested in December 2017, and that it could reach the United States via the North or South Pole due to its long range of more than 11,000 kilometres. In combination with its multiple warheads, the claim was that this would enable it to breach any US missile defence system. What Russia fears most is that it could lose its second-strike capability as a result of an impenetrable US missile defence.

According to President Putin, Russia is additionally developing a new, nuclear-powered cruise missile with an intercontinental range and high manoeuvrability, which would also be able to breach missile defence. However, experts working in the field have reasonable doubts that Russia can overcome the technical difficulties involved in developing such an engine for a cruise missile (too heavy, difficult to cool), since the United States abandoned similar experiments already in the 1960s. Another new development announced recently – an unmanned underwater vehicle carrying nuclear weapons – appeared (probably not by coincidence) during an event with Putin in 2015 as a construction drawing in the background. There are doubts, however, as to which parts of the computer animations shown are reality already.

A new hypersonic weapon ("Avangard hypersonic boost-glide vehicle") and a conventional supersonic air-launched cruise missile named "Kinzhal" presented by Putin, are purportedly capable of breaching the US defence, too. It is well known that Russia (as well as China and India) has been conducting research linked to these supersonic technologies for years with modest success. However, the fact that the United States, despite its clear technological edge in many domains of weapons technology, had long since discontinued all developments in this area shows the technical difficulties Russia would need to overcome in this respect before achieving any future operational viability. New laser weapons, which Putin also presented, similarly still seem far from becoming operational battlefield weapons due to their high energy consumption,² even though the United States is already employing such systems to a limited extent.

What is it that remains of Putin's announcements?

Realistically, what remains of Putin's announcements is little more than a modernised intercontinental missile with an increased range and a greater number of more flexible warheads – the number of which will have to remain limited at least until 2021 under the so-called New START agreement. The other new weapon systems are – until proven otherwise – more likely to still be at the drawing board stage, rather than in the phase of being tested in the field. And: why should a country that was already forced to back-track on many earlier announcements in the area of defence suddenly make substantial progress in weapons technology, at a time when – also as a result of Western sanctions – it is facing declining oil revenues and economic difficulties?

It is therefore worth taking a closer look at a number of earlier Russian modernisation and procurement projects. The main battle tank T14 "Armata", another highly publicised "miracle weapon" that was described by Putin as the "most revolutionary tank for an entire generation", will – for the time being – only be procured at a rate of 120 units per year. After subtracting the tanks required for training purposes, this barely leaves the Russian Army with a number sufficient for two battalions. Moscow had originally

¹ Military-Today.com (2018): RS-28 Sarmat, http://www.military-today.com/missiles/rs28_sarmat.htm

² This also includes the AN/SEQ3 Laser Weapon System mounted on US Navy ships.

planned to produce approximately 2,300 T-14 units by 2020. Now, the procurement programme has been extended to the year 2025.³ The next generation long-distance bomber (PAK-DA), referred to as a threat in the new US nuclear strategy, was supposed to be fielded in the armed forces as of 2020. However, there have been no sightings of prototypes so far, and Russia is now modernising instead the TU-160 “Blackjack” fleet (TU-160M2) for a transitional period.

The situation is not much better in the Russian Navy. Out of the eight strategic nuclear submarines (Borei class) scheduled to be launched by 2017 it looks as only three are in active service so far. And with respect to the Yasen class submarine (an old Soviet design), according to open sources only one is currently in active navy service. A new submarine class designed to launch cruise missiles (project name: Husky) will be available in 2025 at the very earliest to replace older types, most of which date back to the Soviet era.⁴ Following the intended purchase of the French Mistral helicopter carrier that failed in 2015 due to the Russian annexation of Crimea, Russia now plans to launch its own carrier in 2026. Furthermore, the Admiral Gorshkov-class frigate, of which between three and six are scheduled for launching by 2020, will not be ready for sea trials before later this year. One should note in that regard that Russia has not built any combat vessel larger than a frigate since the 1990s. Experts consider that none of the current designs can be implemented within the next ten years. This is also a result of the strained Russian defence budget (see below).

Putting the figures in context

In view of Russia’s rising defence spending, it has been predicted many times that there will be a new arms race. Comparing the figures and a detailed analysis can provide us with a more realistic picture. Yes, Russia has carried out many modernisation projects within its armed forces in the past years, both in the conventional and the nuclear domain. Yes, Russia has increased its defence spending every year, and, with USD 70 billion spent in 2016, the budget more than doubled in comparison to 2006. The average annual growth in expenditures amounted to 7.9 percent in the comparison period, compared to an average GDP increase of only 3.4 percent.⁵ It is helpful to draw another comparison: China’s defence spending has annually increased by more than USD 10 billion since 2006, to a current level of more than USD 215 billion. Thus, while the level of China’s defence spending was approximately 80 percent higher than Russia’s in 2006, Beijing is today spending more than three times as much as Moscow is. Russia invested 5.3 percent of its GDP in defence in 2016 (by comparison: NATO’s objective up to 2025 is 2 percent, and the US is spending 3.3 percent).

But even if such a high percentage can be maintained despite Russia’s economic difficulties and the medium-term oil price forecasts (which experts say is doubtful), the increase over the next 10 years would only amount to between 26 and 36 percent, far below a further doubling of expenditures.⁶ And while Russia’s defence spending as part of the overall state budget with 15.5 percent is far above the respective percentages for the US (9.3 percent), China (6.2 percent), India (8.9 percent), France (4.0 percent) and the United Kingdom (4.7 percent), it is doubtful whether the Russian population can support this high level of spending in the long run – particularly due to the fact that its social welfare is in danger of eroding even further. Any reports of military successes will only be serving temporarily as a distraction in this respect.

³ Offiziere.ch (2017): Can the T-14 Armata Main Battle Tank Possibly Match Its Hype?, <https://www.offiziere.ch/?p=30851>

⁴ Expressed in constant US dollars (2015); see Stockholm International Peace Research Institute (2018): Military Expenditures Database, <https://www.sipri.org/databases/milex>

⁵ Gudrun Persson (ed.) (2016): *Russian Military Capability in a Ten-Year Perspective – 2016* (Stockholm: FOI/Swedish Defence Research Agency) <https://www.foi.se/report-search/pdf?fileName=D%3A%5CReportSearch%5CFiles%5C5fa9f89b-8136-4b15-9aaf-1d227aee90a0.pdf>, p. 147.

⁶ For all data see Stockholm International Peace Research Institute (2018): Military Expenditures Database, <https://www.sipri.org/databases/milex>

It should also not be forgotten that even Russia's increased defence spending (USD 70 billion in 2016) still remains at a level closer to that of France (USD 55 billion), India (USD 55 billion) and the United Kingdom (USD 48 billion) than to that of China (USD 215 billion) and the US (USD 611 billion). By comparison: Germany's defence spending in 2016 amounted to USD 41 billion. Furthermore, despite all the rhetoric, and following cutbacks in 2017, Russia's defence budget is to again be reduced in 2018 and 2019.⁷

A specific examination of the nuclear balance between the United States and Russia once more shows that Russia's announcements should be treated with caution. Recent data provided by the London Institute for Strategic Studies (IISS)⁸ indicates that the number of Russia's silo-launched strategic intercontinental missiles will be reduced from 148 in 2017 to 112 in 2037. However, as outlined above, they will be modernised with a greater number of warheads which are also more flexible. The number of Russian strategic bombers carrying nuclear weapons, according to IISS, will drop from 76 to 48 during the same period. In addition, IISS predicts that, in 2037, Russia will also have one strategic nuclear submarine less than today, and that the number of submarine-launched ballistic missiles (albeit modernised) on the remaining units will be reduced by one third. Rather than increasing its capabilities, it seems that Russia primarily aims to maintain its current standards by prioritising quality over quantity. The only case where IISS predicts an increase is in the number of mobile (and therefore less vulnerable) intercontinental missiles; their number is expected to slightly increase from 165 to 171. This is probably of biggest concern for the West.

The IISS data for the United States allow for a comparison: The number of silo-launched intercontinental missiles is expected to remain at 400 until 2037.⁹ The IISS furthermore predicts that the overall number of US strategic submarines will not increase, and that the number of long-range bombers (B-2 Stealth generation) will drop from 66 to 60 units. Only China is expected to continue its military build-up, albeit at a lower level. The IISS states that China is planning to implement 60 mobile long-range missiles, rather than the 40 it had initially planned, and that it also wants to slightly increase the number of its mobile medium-range missiles.

Are we really experiencing a new arms race? Or are we actually facing other dangers?

The threat posed by Russia's defence efforts should not be played down. At least in the shorter and medium term, however, it is less likely to be caused by absolute numbers or by the new weapon systems presented by President Putin. The threat instead arises from a combination of several other elements. These include for instance Russia's rhetorical threats about using nuclear weapons for the purpose of "de-escalation", which means the early deployment of sub-strategic weapons to "de-escalate" an armed conflict, in order to prevent or deter any larger-scale intervention by Western forces. Moreover, a region-specific conventional and nuclear Russian superiority (for instance regarding tactical nuclear weapons) also represents a threat, much like dangerous and aggressive military and air manoeuvres, particularly in the greater Baltic region do. The modernisation of existing weapon systems, the sudden mass mobilisations of the conventional and nuclear armed forces, and offensive manoeuvre scenarios involving very short advance warning times additionally raise the risk that misunderstandings or miscalculations could lead to an unintended escalation or conflict between Russia and NATO. Covert cyber and information warfare measures against the West, attributed to Russia and of course denied by the Kremlin, add to the concerns. A further aggravating factor is that a number of restrictive arms control agreements, which have so far ensured transparency, are likely to expire soon (New START in 2021). Some of those agreements are in danger due to alleged violations by Russia (for instance the INF Treaty), while others are being undermined or unilaterally interpreted by Russia (CFE and the Treaty on Open Skies).

⁷ Lorenz Hemicker (2017): Russland kürzt Militärausgaben, in: *Frankfurter Allgemeine Zeitung*, <http://www.faz.net/aktuell/politik/ausland/russland-kuerzt-militaerausgaben-zeichen-der-entspannung-14941329.html>

⁸ See International Institute for Strategic Studies (2018): *The 2018 Military Balance Chart* (London: IISS.)

⁹ The total number of warheads remains restricted until 2021 for both Russia and the United States under the New Start agreement. The New START agreement specifies the following maximum limit for the US and Russia: "1,550 nuclear warheads on deployed ICBMs, deployed SLBMs, and deployed heavy bombers equipped for nuclear armaments (each such heavy bomber is counted as one warhead toward this limit)".

Regional imbalances are a particular cause for concern. In the Baltic region, for instance, the current available force of approximately 30,000 troops from NATO countries (including 9,000 temporarily stationed US troops) is confronted with a Russian force of more than twice its size, consisting of 78,000 Russian soldiers in Russia's western military district.¹⁰ Approximately 130 battle tanks that NATO can mobilise at short notice are confronted with more than 700 Russian battle tanks in the region. The only area where NATO and especially the US have an advantage with more than 2,500 units, is in terms of combat aeroplanes. This compares to a total of 1,250 combat aircraft on the Russian side. However, many of the US combat aircraft are stationed elsewhere in the world and, unlike Moscow's, they cannot be deployed in the Baltic region at short notice. In addition, Russia, as opposed to a NATO of 29 Member States, has the advantage of a uniform strategic and operational leadership under the command of *one* supreme commander (President Putin). Other Russian advantages include standardised operational and tactical doctrine, the capability to mobilise and deploy larger formations on an ad-hoc basis, a denser network of modern air defence systems to mitigate NATO's air power, as well as geographical advantages due to proximity with the Baltic region, the Black Sea, and Scandinavia.

A critical situation would also arise if Russia stationed Iskander-M short-range missiles in Kaliningrad on a long-term basis, and particularly if they were equipped with nuclear warheads. So far, Russia had only deployed Iskander-M missiles to the enclave for exercises, before withdrawing them again afterwards. Depending on the target, these missiles can be equipped with various warheads, both conventional and nuclear. They have a range of up to 500 kilometres, which means they could pose a risk for the Baltic States, but also for parts of Poland and Sweden. Western governments are also highly concerned that Russia may have further developed the Iskander-M missile to increase its range so that it could now also reach Berlin. It has been reported that Russia also tested a land-based cruise missile (SSC-8) with a range that is illegal under the INF Treaty. Dating back to the Cold War, the INF Treaty prohibits land-based missiles with ranges between 500 and 5,500 kilometres. If Russia were to permanently station these systems on its western border, they would pose a permanent threat for large areas of Europe and cause a fundamental shift in the strategic situation.¹¹

Conclusion

Putin's weapons show raises many questions that will keep Western security experts busy for some time yet. There are justified doubts regarding the extent to which the systems have already been tested, and as to whether and how they can actually become operational, or whether they only exist on the drawing board. In the past, there have been major discrepancies between military procurement projects announced by the Kremlin and the extent of their subsequent implementation. In view of Russia's economic difficulties and stagnating – or even decreasing – defence spending over the next years, it seems likely that the completion deadlines of many planned armament projects will at least need to be extended.

The West should primarily focus as of now its attention on the existing and modernised conventional and nuclear systems, on regional disparities, and on potential or actual violations of existing arms control agreements by Russia. Vladimir Putin should be urged to take part in a genuine dialogue within the framework of NATO and within OSCE. The aim should also be to counter the danger of misunderstandings and miscalculations by increasing transparency and establishing a permanent dialogue at the political and military level.

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¹⁰ Munich Security Conference (2018): Munich Security Report 2018. To the Brink – and Back? (Munich: MSC), <https://www.securityconference.de/en/discussion/munich-security-report/>, p. 35ff.

¹¹ See [Security Policy Working Paper No. 30/2017](#) published by the Federal Academy for Security Policy.