

## U.S.-China Military Competition: Will Russia Be Left Behind?

Shahryar Pasandideh

The George Washington University

[pasandideh@gwu.edu](mailto:pasandideh@gwu.edu)

For decades, the United States and Russia have been one another's peer/reference adversaries. That is to say that their force structures, doctrines, technology development, and procurement have been largely directed at and responsive to one another. Even as the United States focused on counterterrorism and counterinsurgency in the Middle East for over a decade, Russian military developments, such as they were in the backdrop of the post-Soviet decline in defence expenditures, largely set the pacing threat for the development of American military capabilities, both conventional and nuclear. Almost three decades from the end of the Cold War, however, the United States increasingly sees China, not Russia, as its *primary* peer/reference adversary in military affairs.<sup>1</sup> This is particularly true in the aerial and naval realms of warfare and admittedly less so on land, a domain of warfare where Russian developments remain at the forefront of American military thinking.

As is widely recognized, the military competition between the United States and China is intensifying, a development perhaps best attested to by various reports published by both the Trump and Obama administrations, including their respective national security strategies and policies undertaken by the United States Department of Defense in recent years. For Russia, U.S.-Russia relations, and interested parties, these developments in defence policy, rooted in the

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<sup>1</sup> It bears emphasis that this is a *relative* claim and the U.S. military increasingly views *both* Russia and China as peer/reference adversaries – “near peer threats in an era of great power competition,” so to speak.

long-running redistribution of global economic capacity and the “rise of China” – that is, not decisions undertaken in Moscow per se – have major implications for Russian defence policy, both conventional and nuclear.

With the growth in the economic and military-technological capacities of the United States and China outpacing that of Russia, there exists a strong potentiality that Russia will fall behind as the military competition between the United States and China further intensifies. While this decoupling of U.S.-Russian (conventional) military dynamics may help to stabilize the bilateral relationship in ways not seen in much of the post-Second World War era, nuclear dynamics are likely to remain dyadic between the U.S. and Russia for the foreseeable future, with China only being a tertiary player for as long as the great chasm in nuclear force structures continues. With Russia’s views of the dyadic nuclear balance, unlike that of the United States, *including* conventional military capabilities such as conventionally-armed cruise missiles and other precision-guided munitions (PGMs) as well as ballistic missile defence (BMD), however, the intensification of the conventional military competition between the United States and China may still lead Russia to feel increasingly insecure in the nuclear realm (i.e., concerned about the survivability of its “secure, second-strike” nuclear forces), especially if the United States feels that it must make qualitative and quantitative investments in its conventional military capabilities which far exceed those required to counter Russia.

Before proceeding to discuss military competition in the areas of combat aviation and ground-launched PGMs, a brief discussion of what is meant by Russia “falling behind” is required. Although an extensive examination is not possible in this briefing, there are at least two dimensions to this phenomenon. The first is *qualitative*: this is an issue about military innovations and advances in military technology. The second is *quantitative*: this is an issue of

how many units of a given military technology can be procured and fielded. Of course, these issues are intimately linked. For example, there is the important question of how many units of the latest military technology, such as fifth-generation fighter aircraft, which Russia and field and procure in the near term. Ultimately, the quantitative dimension is largely a function of inputs into defence and how effectively and efficiently these resources are converted into military power. Although there are important issues here relating to, amongst other things, the vitality of the Russian economy, the administrative efficiency of the Russian state, and the performance of the country's education system, particularly at the tertiary level, as well as Russia's ability to sustainably curtail its long-term "brain drain," the focus here is primarily on the qualitative dimension of military competition.

### **Combat Aircraft**

To briefly illustrate what "falling behind" looks like and its implications, it is instructive to examine the military aviation sector. For reasons relating to both the inevitable scarcity (i.e., perennially finite nature) of resources and the desirable performance and concomitant tradeoffs inherent in specialized military equipment, the Russian Air Force, like all contemporary air forces planning on combating advanced adversaries, ideally needs three general types of combat aircraft: (1) a heavy fighter for air superiority missions; (2) a light/medium weight fighter which can be more affordably built in larger numbers for a variety of missions including both air defence and strike; and (3) a dedicated and specialized strike aircraft.<sup>2</sup>

In the United States (Air Force), these roles are being filled by, amongst other platforms, the F-22 (and the older F-15), the F-35 (and the older F-16), and the in-development B-21

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<sup>2</sup> If the goal is to strike targets at distances measured in the thousands of kilometers, as Russia does through its Long Range Aviation Command, then an additional long-range bomber is required.

(alongside the older B-2, B-1, and B-52), respectively. In China, they are being filled by the J-20 for the heavy fighter, a variety of aircraft for the medium fighter, and two bombers, the venerable H-6 and the in-development H-20. In Russia, however, resource constraints have meant that only a new heavy fighter program has made advances in recent year – the Su-57 (intended to supplement and replace the Su-27/30/35 heavy fighters). Although initial research & development began during the Soviet Union, there is, at best, only an incipient Russian light/medium fighter program (to replace the medium-weight MiG-29), one which will likely take a decade or so to materialize. Furthermore, there exist reasonable grounds for circumspection about the financial and technical feasibility of a new large bomber program (the PAK DA project) given the delays in the development and procurement of the Su-57, an aircraft which has not yet entered service despite over nine years of post-flight development.<sup>3</sup>

Put differently, even now, at what is perhaps the first stages of a likely intense action-reaction dynamic of competitive arming and technological development between the United States and China, Russia is already lagging behind. It simply lacks the resources, financial and otherwise, to pursue the development of all these platforms (in addition to other air force projects as well as other military projects) at the same time, let alone their concurrent procurement in large numbers. It bears emphasis that this dynamic is not entirely new. For most of the post-Cold War era, Russia's military has been resource deficient relative to its modernization needs. Therefore, rather than developing new "clean sheet" designs, the Russian military has instead largely upgraded existing Soviet-origin equipment and built new versions thereof (i.e., Su-30SM,

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<sup>3</sup> Rather tellingly, Russia has decided to restart (limited) production of the Tu-160, a late Soviet bomber first flown in 1981. Furthermore, although the Su-57 made its first flight before the Chinese J-20, the latter has entered service earlier than the Russian aircraft.

MiG-35, and now the Tu-160) and completed R&D efforts begun under the Soviet Union (i.e., Su-34, Su-35).

To be clear, this approach may have been sensible even beyond the issue of cost-effectiveness. If an existing system can be upgraded (with new components, particularly defence electronics) to provide capabilities approximating with those of an (all things equal, typically more expensive) “clean sheet” design, then invariably scarce funds can be sensibly allocated elsewhere, particularly in a context where Russia’s entire military continues to be in need of modernization. In fact, many of Russia’s latest types of military equipment – the Su-35 fighter, the Su-34 strike aircraft, the S-400 and Buk air defence systems, the latest Kilo and Yasen class submarines, and T-90 tank are excellent examples of this. These are, in general, very capable armaments, both individually and collectively but they are nonetheless the latest refinements of existing and rather old designs that are now pushing near their maximum evolutionary point of development.

Moreover, however efficacious this resource-maximizing incrementalist approach to military modernization has been to date, this process cannot go on forever, especially not if the United States and China become locked in a competitive dynamic of outdoing each other in terms of military technology, a process which is likely to lead to the rapid emergence of entirely new “clean sheet” armaments some of which will be of types that have heretofore been unseen on the battlefield (i.e., directed energy weapons, hypersonic munitions, and so forth). Eventually, at some point in the near future, Soviet origin designs, however updated with more modern components, will cease to provide the capabilities required to militarily compete in a direct (i.e., “high-intensity”) military conflict with a great power such as the United States. When this happens, Russia, with its relatively limited resources for defence vis-à-vis the United States and

China, will face a moment of reckoning with respect to its defence policy, both conventional and nuclear.

### **Other approaches to military competitions**

It is, of course, possible that rather than engaging in a head-to-head competition with the United States (and China), Russia may instead pursue “indirect approaches” to counter the growth in American military capabilities. Indeed, Russia has arguably already done so extensively. But here, too, the intensification of U.S.-China security competition may leave Russia behind.

Consider, for example, how Russia has attempted to counter American air power in the post-Cold War era. Although new combat aircraft such as those discussed earlier have constituted a major thrust of Russian efforts, the country has also worked to improve its (conventional) precision strike capabilities. In part due to the large gap in economic wherewithal with the United States and NATO as well as Russia’s resultant inability to field and sustain a comparatively sized and capable air force, Russia made a considerable investment towards missile-based conventional strike capabilities. Some of these are in the form of cruise missiles launched by (Soviet-era) bombers, such as the venerable 1950s origin Tu-95, as well as the later Soviet Tu-22M and Tu-160. With these air-launched cruise missiles, Russia can, in principle, hold at risk NATO airbases as well as other military installations. But these aircraft are finite and are unsuitable for sustained missile launches against large target sets. As such, Russia has also invested in conventionally-armed ground-launched missiles such as the Iskander ballistic missile (ground-launched only) and the Kalibr family of cruise missiles (naval but allegedly also ground-launched). The issue here, of course, is that although ground-launched modes of missile

deployment come with many advantages, they have long been regulated by the 1987 Intermediate Nuclear Forces (INF) Treaty.<sup>4</sup>

Irrespective of the minutiae of the debate about the causes for the demise of the INF Treaty, it is clear that Russia at least made investments towards the development of longer-range ground-launched cruise missiles and may have even deployed them. Here, one sees an example of an indirect approach, one which may, at least in principle, allow Russia to continue to compete militarily with the United States. But a closer examination suggests otherwise. Although the Trump administration cited Russia's alleged violations of the INF Treaty as a cause for its abrogation of that arms control treaty, it also pointed out China's formidable ground-launched conventionally-armed missiles capabilities, capabilities which are not regulated by the INF Treaty (China not being a party) and which greatly shape the shifting Asian military balance.

Today, following the demise of the INF Treaty, the U.S. military is actively working on several INF-range conventionally-armed ground-launched missiles, most, if not all, of which are *primarily* intended to target Chinese military capabilities, not Russia (if readers are skeptical about this characterization, they should simply consider the reported ranges of the missiles in question and engage in a comparison of the military/strategic geography of the European and western Pacific theatres of operation from the U.S. military's vantage point). In a dynamic that is intimately related, the United States (and China) are also actively pursuing conventionally-armed hypersonic munitions for the same conventional strike missions. Intriguingly, whereas Russia has reportedly developed its own hypersonic munitions, such as the *Avangard*, to deliver *nuclear* warheads in the context of improvements in American BMD capabilities, the United States and

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<sup>4</sup> This treaty banned all ground-launched missiles with a range of between 500 and 5,500 kilometers, irrespective of whether they are armed with conventional or nuclear warheads.

China appear to see these as important tools for conventional warfare between themselves. These new military capabilities, however, can nonetheless be directed towards Russia.

For Russia, these developments are likely concerning in many respects. Not only may these new ground-launched conventionally-armed missiles, hypersonic and otherwise, offer the United States more effective ways to negate Russia's investment into its military capabilities, including its formidable air defence network, they also pose a threat to Russia's nuclear forces. For well over a decade, American sea and air-launched cruise missile capabilities, including the well-known Tomahawk cruise missile, have reportedly caused considerable concern amongst Russian analysts of the dyadic nuclear balance. These conventional armaments, they argue, can be used as part of a counterforce campaign to disarm Russia of its nuclear weapons during a time of crisis or conflict.

With Moscow considering its nuclear arsenal to be the ultimate backstop to Russian national security, threats to the nuclear arsenal, real or imaged, are likely to have major effects on Russian defence policy. With the INF Treaty no longer in effect, at least in part as a result of Russia's own alleged actions but also as a consequence of changes in the military balance between the United States and China, Russia now finds itself in a position where it risks falling behind in conventional precision strike capabilities in both quantitative and qualitative terms even if it was, in an important sense, the first-mover. For these reasons, in an era of intensifying military competition between the United States and China, indirect approaches to counter American military power may no longer be as effective as they have in recent years.

## **Conclusion**

To conclude this briefing, it bears emphasis that several important issues have not been examined and addressed, including the capabilities, present and future, of Russia's defence

industry. It is also worth stressing that Russian military hardware remains competitive in many areas notwithstanding that the Soviet inheritance remains strong. What is clear, however, is that Russia is ill-positioned to compete militarily with the United States over the long term particularly as the military competition between the United States and China intensifies. All things considered, Russia's economy and fiscal outlays on defence (in the context of the federal budget) bode ill for Russian military capabilities in the future.

Already, Russia is falling behind in several important areas of military technology and military capabilities. Should this dynamic continue and increase in pace and scale, Russia will not only face major challenges in its security policy, but other countries will also likely need to recalibrate their defence policies vis-à-vis Russia. Whether Russia, for its part, can and will adapt to this seemingly emerging strategic reality is an open question, as is the practicability of arms control and security cooperation to mitigate the likely approaching wave of advances in military technology and capabilities. Given the current state of bilateral relations and the poor prospects for continued, let alone additional, arms control efforts, including the renewal and/or renegotiation of the New START Treaty, the outlook is rather dim. Ultimately, however, major changes are underway in the military balance and analysts must assess these unfolding dynamics, regardless of the political capacity to deal with them in the near term.