

A photograph of Vladimir Putin on the left and Xi Jinping on the right, both in dark suits and red ties. They are standing in front of the Russian flag (left) and the Chinese flag (right). The background is slightly blurred, showing a landscape.

DECEMBER 2022

Understanding the Broader Transatlantic Security Implications of Greater Sino- Russian Military Alignment

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A Report of the CSIS Europe, Russia, and Eurasia Program

CSIS | CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

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Acknowledgments

This report would not have been possible without the support of the CSIS Freeman Chair in China Studies, which provided vital assistance in identifying and translating Chinese language source materials and ensuring that the Chinese perspective on the bilateral relationship was adequately represented. In particular, we thank Jude Blanchette, who holds the Freeman Chair, for his thoughtful advice and leadership during critical phases of the project, and Alexandra Chopenko for her invaluable research support throughout the period of performance.

CSIS had the pleasure to convene two working group sessions in which experts of the Russian and Chinese defense industries shared their perspectives on the translated materials and provided their assessment of where the relationship may progress. We thank them for their participation and for providing input that helped shape the analytical papers and the executive summary, and appreciate the moderation provided by Bonny Lin, director of the CSIS China Power program.

Finally, we would like to thank the authors of the eight analytical papers for their thoughtful analysis of the four aspects of bilateral military cooperation between Russia and China assessed in this report. Their insights will help the Euro-Atlantic community prepare more effectively for the implications of this deepening alignment.



This publication was funded by the Russia Strategic Initiative, U.S. European Command. The views expressed in this publication do not necessarily represent the views of the Department of Defense or the United States government.

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Executive Summary

Max Bergmann and Andrew Lohsen

In early February 2022, Presidents Vladimir Putin of Russia and Xi Jinping of China met in person for the first time in two years for bilateral talks in advance of the Winter Olympics in Beijing. The summit concluded with a joint statement in which the leaders announced a partnership “with no forbidden areas of cooperation.”¹ This was a pivotal moment in the Sino-Russian relationship. Coming amid heightened tensions between Moscow and the West triggered by Russia’s buildup of military forces along the Ukrainian border, the detailed statement demonstrated a joint commitment to building a stronger bilateral partnership. The meeting affirmed that not only do Putin and Xi both perceive the prevailing global order as Western-dominated and designed to constrain their ability to pursue their strategic interests, they also have a shared desire to challenge the existing global order. It demonstrated their mutual understanding that each country had something to gain from the other in the effort to move the world toward multipolarity.

Russia’s invasion of Ukraine, which began only 20 days after the summit, immediately put to the test the proclamation that there were “no limits” to the Sino-Russian partnership. Yet, while Western officials may have hoped that the violation of Ukraine’s sovereignty would drive a wedge between Moscow and Beijing, such expectations so far have proven overly optimistic. China has neither provided extensive military aid nor indicated a broad willingness to help Russia circumvent sanctions, but its leaders have refused to condemn Russia’s actions and instead blame the United States and the West for the war due to their enlargement of the North Atlantic Treaty Organization (NATO) alliance in disregard of Russia’s security concerns.² Moreover, bilateral trade has intensified as Russia pivots away from European markets, and the countries continue to engage in joint military exercises.

Leaders of both Russia and China have also made confident statements regarding the robustness of their countries' partnership. Chinese foreign minister Wang Yi remarked in July that bilateral relations were characterized by their "strong resilience and strategic determination" amid uncertain geopolitical conditions, while his Russian counterpart Sergey Lavrov indicated that cooperation with China would not be subject to "external interference."³ In short, the overall framework of the relationship as an anti-Western partnership remains intact, and the two countries continue to find opportunities for cooperation.

The military sphere provides fertile ground for Russia and China to strengthen their relationship. Bilateral military ties have grown substantially since Russia's 2014 annexation of Crimea and its proxy war in eastern Ukraine set it on a trajectory of confrontation with—and isolation from—the West.⁴ Cooperation has occurred along several vectors; for example, arms sales between the countries involve increasingly sensitive and complex technologies, the tempo and scope of military exercises has increased, and the two countries are collaborating on satellite navigation, which has substantial military applications.

In recent years, Western analysts have closely examined Sino-Russian military cooperation in an effort to understand the factors that either perpetuate or limit the alignment of their strategic competitors. Yet, the perspectives of strategic thinkers from within Russia and China are often missing from the conversation, despite their obvious analytical value. To bridge this gap, CSIS has curated and translated strategically important primary-source materials from China and Russia to ascertain how strategic thinkers in each country expect bilateral military cooperation to develop in the coming years. These documents, which have been analyzed by leading defense and foreign policy specialists in the United States and Europe, contribute to a more complete understanding of China and Russia's intentions, actions, and capabilities with regard to military cooperation. This knowledge is essential for defense officials and policymakers in Washington, Brussels, and other European capitals to develop realistic forecasts and create more effective plans to manage the implications of the alignment of these two geopolitical actors.

To obtain a wide-ranging view of how Russian and Chinese thinkers expect the bilateral military relationship to develop, CSIS has selected four areas of cooperation for close examination: arms sales and technology transfers, military exercises, space and cyber warfare, and hybrid tactics (such as influence operations). Translations of the Russian- and Chinese-language documents commenting upon cooperation in these areas are published on the website of the CSIS *Interpret: China* project, an online, interactive digital platform that uses previously untranslated primary source material to drive in-depth discussions and debates on strategic topics relating to U.S.-China relations and the broader topic of China's rise.

Notable Findings

Across the four areas of cooperation, Russian and Chinese strategic thinkers recognize the importance of joint activities to advance the shared geopolitical goal of challenging Western hegemony in global affairs. The authors of the source documents cited in this project perceive that the "strategic triangle" their countries form with the United States is out of balance, and the significant advantage enjoyed by the United States and its allies in terms of force, technology, and the ability to set "the rules of the game" through international norms and legal frameworks is the main driver of global instability.

Framing competition with the United States in zero-sum terms, the strategic communities in Russia and China suggest that eroding the West's dominant position is necessary to create a more just and sustainable global order defined by the parity of major powers. In this context, bilateral cooperation is advantageous not only for its practical benefits (e.g., access to advanced technology, capacity development) but also for the signal that it sends to the West: each country is dissatisfied with the status quo and intends to change it. They apparently hope that the United States will eventually heed this message and demonstrate “respect” through self-deterrence (e.g., not responding to provocative messaging or actions by Russia or China in areas where they claim to have privileged interests, and thus gradually ceding their self-declared spheres of influence).

Several of the Russian and Chinese authors highlight the importance of using military cooperation to improve mutual trust and, by extension, strengthen the underpinnings of the Sino-Russian alignment. They also share an awareness of inequality within the relationship, with China continuing to develop its defense industrial capacity, advanced technological capabilities, and economic base to boost its major power status at a time when Russia is experiencing stagnation and seems headed for a prolonged period of decline. As China continues to develop, it will have less need for the expertise that Russia currently provides, but Russia will continue to require Chinese resources—especially if its diplomatic and economic isolation continues. To Russian and Chinese thinkers, the growing imbalance within the relationship does not necessarily mean cooperation will come to a halt; as long as Russian and Chinese leaders believe that the United States is trying to weaken or contain them as geopolitical competitors, there is something to be gained from further joint activities. Yet, the nature of the relationship is bound to change. Russia seems destined to play a supporting role to China should the “strategic triangle” transform into bipolar confrontation between China and the West—an outcome that some Russian authors struggle to accept. However, considering the key trends unique to each of the four aforementioned aspects of military cooperation, it would be premature to relegate Russia to “junior partner” status too quickly.

Arms sales and technology transfers: Both strategic communities recognize that the advancement of China's defense industry has reduced the need to import military equipment from Russia, and accordingly, the commercial importance of arms sales has waned. As Chinese production capabilities catch up with Russia in certain areas and exceed it in others, what used to be a one-sided relationship is now on roughly equal footing. Although historical cases of Chinese reverse engineering and intellectual property theft—along with China's potential to challenge Russia for primacy on the global arms market—have contributed to mistrust, each state desires greater access to technology to compete more effectively with the West. As such, strategic thinkers expect cooperation to continue and even deepen in the coming years as the two countries engage in the joint development of advanced systems (e.g., missile defense). The relatively equal standing of Russia and China in the field of arms sales and technology transfers—celebrated by Chinese thinkers in particular—may be fleeting, however, as both communities recognize that China is unlikely to share its most advanced technologies with Russia once it outpaces its former patron.

Military exercises: The pace and complexity of joint exercises has increased steadily over the past decade, and both strategic communities expect Russia and China to maintain robust cooperation in this sphere. This is primarily driven by the need to send a message to the West about the growing military strength of their partnership. Strategic thinkers in both countries see military exercises as being particularly important for deterrence signaling in the Asia-Pacific region, where intensified

strategic competition with Western powers appears inevitable. There is a shared recognition that military exercises are critical to trust building, as the two militaries become more familiar with the strengths, weaknesses, and capacities of the other's equipment. Russian authors tend to be more sanguine about the practical military benefits of these exercises, claiming, for example, that they have resulted in the increased interoperability of forces but offering little evidence to back their claims. While their assessments may have shifted since Russia's February 2022 invasion of Ukraine, Chinese writers recognize that they have much to learn from the Russian military, which has more recent experience conducting large-scale warfare, confronting adversaries trained by the West and equipped with Western arms, and competing with the United States in general.

Space and cyber: Open-source materials analyzing Russian and Chinese space cooperation tend to concentrate on two areas of activity: technical cooperation and diplomacy. The recent growth of China's domestic space industry and healthy levels of funding for research suggest that Beijing is rapidly heading toward self-sufficiency when it comes to conducting space missions. Meanwhile, Russia's status as a space-faring nation, recognized by Russian and Chinese authors as central to its sense of national pride, appears tenuous due to shrinking budgets, restrictions on imports, and aging equipment and personnel. The ambition of some technical cooperation programs, including plans to build a lunar research station together, appear out of sync with Russia's ability to deliver, and it may only be a matter of time before Russia's fears of being left behind in the space race are realized. Nonetheless, according to the authors of the source materials, there are still areas where Russia and China stand to benefit from cooperation, including diplomatic efforts to counter what they perceive as U.S. attempts to militarize space. (The potential for jointly developing counter-space capabilities is largely unexplored, despite comments by some authors that the West was triggering an arms race in space.) Chinese and Russian authors also appreciate the importance of developing alternatives to the West's attempts to set rules in international fora on activities in space, seeing this as an imperative to retain sovereignty. They apply similar logic to cyberspace governance.

Hybrid warfare: In stark contrast to Western perceptions, strategic thinkers in both countries believe that the concept of hybrid warfare originated in the United States as a means to undermine U.S. competitors. As such, experts from both China and Russia believe they must learn from the West and develop appropriate countermeasures to defend themselves against this threat. This defensive framing portends growing cooperation between Russia and China, but it is unclear whether the strategic communities of these countries have developed a shared language that would guide their response to the perceived maliciousness of the West. Chinese thinkers surveyed in this report distinguish between hybrid warfare, which attempts to create controlled chaos on the periphery of great powers as a means to balance their influence, and gray zone competition, which establishes narratives to justify the pursuit of certain aims. Understanding how to apply these distinct but complementary approaches is critical to the survival of rising powers in competition with the West. Russian scholars, meanwhile, emphasize the need to prepare the country for "mental war"—a form of total war in which states aim to destroy the foundation of each other's strategic cultures. In this respect, protecting one's information space becomes paramount; otherwise, states risk the erosion of the "core idea" underpinning their civilization. With regard to cooperation, strategic thinkers in Russia and China see regional organizations, such as the Shanghai Cooperation Organization, the Collective Security Treaty Organization, and the BRICS (Brazil, Russia, India, China, and South Africa) grouping as a possible way to coordinate mutual activities to defend against Western hybrid aggression. They also focus on developing

stronger information security measures and piloting new frameworks for cyberspace governance in hopes of mitigating the West’s perceived advantage in the information space.

Most of the source material for this report was gathered prior to Russia’s invasion of Ukraine—a transformative and disruptive event that challenges many of the key assumptions laid out in the texts. In the following chapters, Western authors reviewing these source materials recognize the potential for the war to cause both positive and negative changes to the course to cooperation. Writing about military exercises, one expert noted that the Russian and Chinese strategic communities “made their predictions based on the implicit assumption that joint exercises would continue on their current trajectory” and cautioned that continuity is not a given.⁵ This warning could well apply to cooperation in other spheres.

The war in Ukraine poses contradictory implications for the course of Sino-Russian alignment. Russia’s poor performance on the battlefield—particularly in the early days of the invasion—has raised questions about the quality of Russian military technology and the Kremlin’s ability to pursue its strategic aims effectively. Due to wide-ranging Western sanctions, Russia is cut off from critical supply chains and funding sources, and it is ostracized in certain international fora. These factors could lead Beijing to reassess the nature of its ties with Russia. On the other hand, Russia’s experience in attempting to counter and overcome these impacts could prove valuable to Beijing as it girds itself for increased confrontation with the West in the Asia-Pacific region. In this case, the war in Ukraine could contribute to deeper cooperation between Russia and China.

Beijing may sustain reputational damage from partnering with Moscow at a time when Russia has trampled upon international norms and principles, including respect for sovereignty and territorial integrity and non-interference in the affairs of foreign states. However, the overall contours of strategic competition with the West as part of a “strategic triangle” have not changed, and Beijing may find itself in a stronger position to set the terms of the relationship to a partner with few other friends.

Disclaimer regarding translations: The source materials selected for this report were taken from Russian and Chinese news outlets and academic journals. The translated texts have been published in an appendix to this report in accordance with relevant copyright protections. Authors were provided with advance copies of the translations that were subsequently edited for clarity and coherence. CSIS has made an effort to address any inconsistencies, but in some cases, quotes selected by authors may not match the precise wording in the final translations. CSIS affirms that any discrepancies that remain are of a minor (semantic) nature rather than a substantive one.

Russian Views on Sino-Russian Military-Technical Cooperation

By Cecilie Sendstad and Una Hakvåg

In 2014, when relations with the West deteriorated significantly due to Russia’s annexation of Crimea and its undeclared proxy war in eastern Ukraine, Russia accelerated its pivot to Asia.¹ This pivot affected all areas of Sino-Russian bilateral cooperation, but it was particularly noticeable in the arms trade, where a softening of Russian export restrictions allowed for a revitalization of military-technological cooperation.²

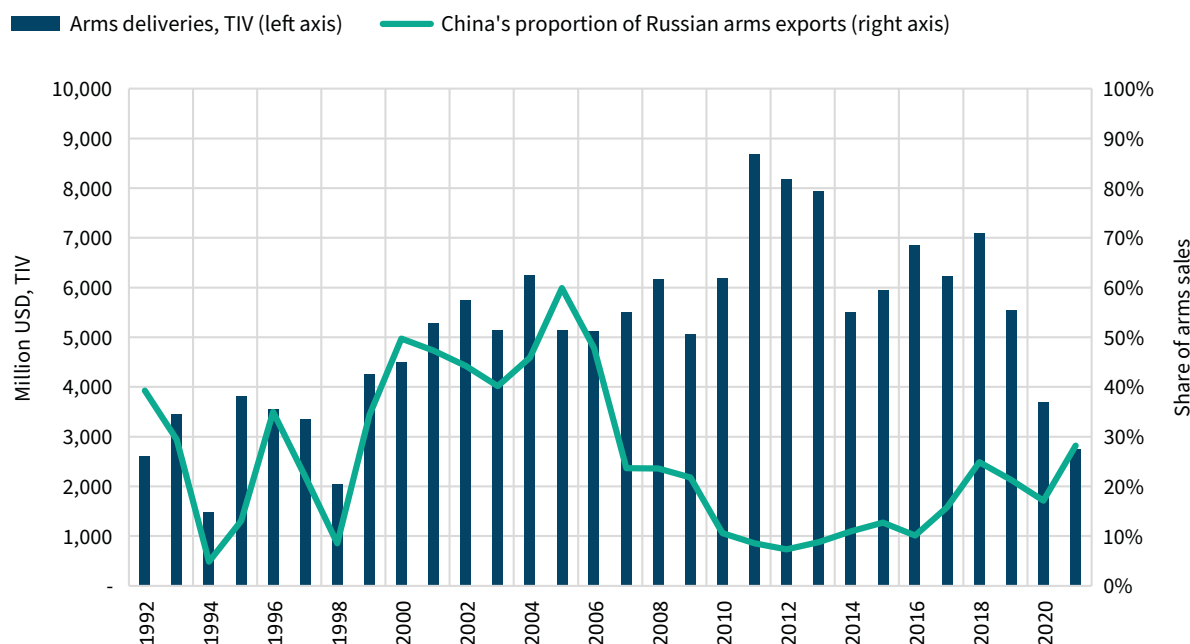
In February 2022, only weeks before Russia launched its invasion of Ukraine, the Russian and Chinese presidents stated that their relationship had never been better and that it knew “no limits.”³ Despite this proclamation, members of the Russian security community are much more modest in their assessments of the partnership than their leaders, usually describing it as an “armed friendship” or a “partnership with limitations.”⁴ The dominant view among Russian military experts is that Sino-Russian military-technological cooperation is mainly military-political in character, motivated by the countries’ common opposition to what they perceive as the United States’ global hegemony. Mutual distrust and diverging local and regional interests make it seem less likely that China and Russia’s military-technological cooperation will turn into an alliance any time soon.

Sino-Russian Military Cooperation: Past and Present

Russian military experts consider arms trade the cornerstone of modern Sino-Russian security cooperation.⁵ When China was banned from importing Western military equipment after the 1989 Tiananmen Square massacre, Russia became the country’s main source for advanced equipment. During the

1990s, China imported approximately 30 percent of all Russian arms exports, illustrated in Figure 1. At the same time, the Russian defense budget deteriorated in the aftermath of the Soviet Union’s collapse, and the Russian defense industry became dependent upon export earnings for survival.

Figure 1: Delivery of Russian Arms Exports, 1992–2021



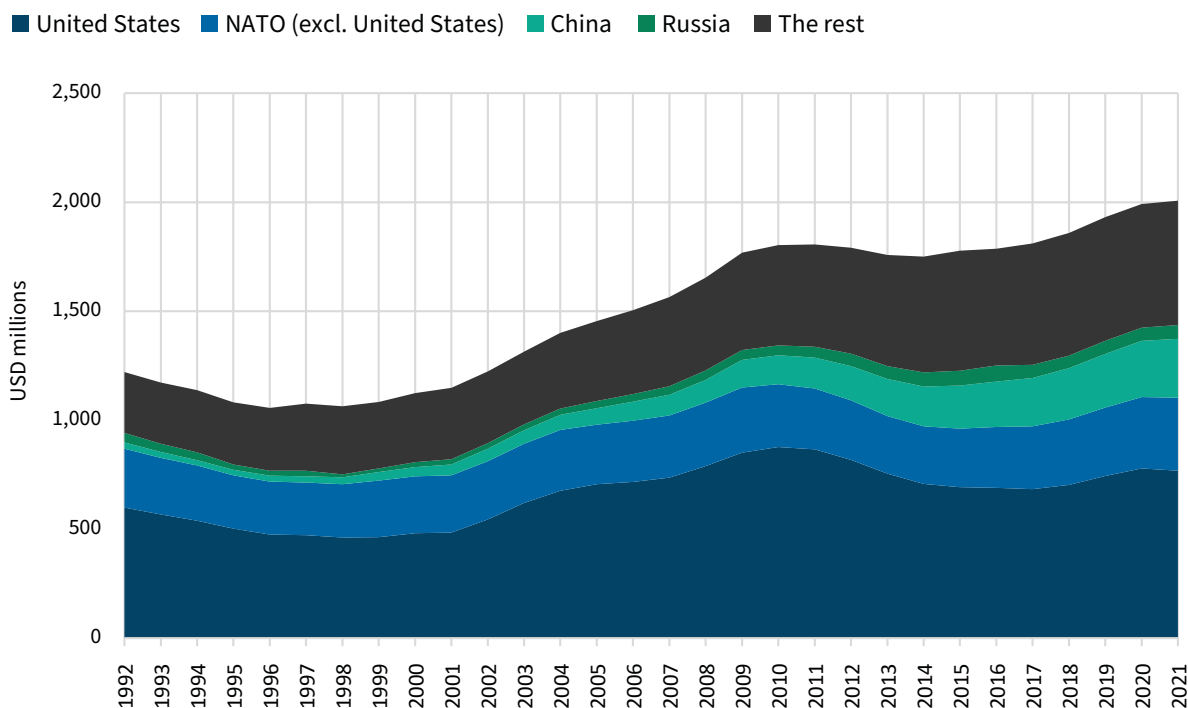
Note: Trend indicator value (TIV) measures capability rather than financial value. Source: Data from “SIPRI Arms Transfers Database,” Stockholm International Peace Research Institute, <https://www.sipri.org/databases/armstransfers>.

Starting in the mid-2000s, Chinese interest in Russian military technology fell as its own defense industrial capabilities rose. The rapid advancement of China’s domestic arms industry in recent years has narrowed bilateral cooperation on arms sales to the extent that China is now only interested in cooperating with Russia in the fields where Russia retains advantages and can offer world-leading technology. A countervailing influence on the relationship is that Russia has tended to refrain from exporting its most advanced military technology. For many years, security concerns led Russia to adopt a more restrictive export policy toward China than toward its other major military-technological partner, India.⁶ However, a shift in Russia’s policy was observed in 2015 when Russia agreed to sell China some of its most advanced military equipment, namely the Su-35 combat aircraft and S-400 air defense systems.⁷ Since 2015, China has purchased more newly developed equipment than any other importer of Russian arms.⁸

Russian military experts attribute the change in policy partly to the increased technological capabilities of the Chinese defense industry—which has made Beijing disinclined to purchase Russia’s second-best equipment—and partly to Russia’s weakened trade position following the fallout with the West. They assess that refusing to share technology with China will protect the Russian defense industry’s market position only in the short run.⁹ As Figure 2 shows, China has spent more than Russia on defense for more than 20 years. China is already ahead of Russia when it comes to fourth-generation technologies, electronics, composites, advanced materials, and shipbuilding.¹⁰ It is likely only a matter of time

before China also catches up with Russia in the fields of air defense and aviation engine technologies. One Russian military expert considers it possible that the Chinese defense industry may start serial production of fifth-generation fighters before Russia.¹¹

Figure 2: The World's Defense Expenditures, 2020



Source: Data from “SIPRI Military Expenditure Database,” Stockholm International Peace Research Institute, <https://www.sipri.org/databases/milex>.

As a consequence of the shift in policy, China’s share of Russian exported capabilities has increased, as illustrated in Figure 1. It should be noted, however, that the “amount of capabilities” does not reflect financial value, and the delivery years may be imprecise. This can be discerned by comparing capability exports with the Stockholm International Peace Research Institute’s (SIPRI) financial value of arms transfers database, which shows that the value of Russian arms exports was stable in 2012–2019.¹²

Although China has once again become an important market for Russian arms exports, the arms trade with China is no longer important to Russia for economic reasons, as the structure of Sino-Russian trade has changed over the last decades.¹³ Machinery and equipment, which made up a third of Russia’s exports to China in the 1990s, has fallen to the low single digits, while the share of hydrocarbons has significantly increased. Nevertheless, exports may still be important for companies within the Russian defense industry, if it allows them to maintain a wide spectrum of production lines.¹⁴

Prospects for Future Cooperation

In the view of the Russian strategic community, the revitalization of Sino-Russian arms trade and military-technological cooperation since 2014 is important mainly for geopolitical reasons. The driver of bilateral cooperation is perceived to be their common opposition to U.S. geopolitical interests

and their similar vision of a future multipolar world.¹⁵ Since the relationship is based on mutualism, rather than ideology, future cooperation depends on the extent to which each of the parties can offer something that allows the other to achieve its objectives.¹⁶ The Chinese defense industry has not yet caught up with Russian producers of air defense systems, radar equipment, submarine technology, and aircraft engines. China is therefore likely to remain interested in cooperation with Russia in these fields. China has also shown interest in the new Russian Burak-M buoy for submarines.¹⁷

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Meanwhile, Russia is becoming increasingly interested in Chinese technology. Limitations on the import of Western components have led to delays in the development of many of the new generation Russian weapon systems, including the upgraded fourth-generation fighter MiG-35, the fifth-generation fighter Sukhoi Su-57, and the main battle tank T-14 Armata.¹⁸ In addition to establishing import substitution programs, Russia most likely will seek to replace some Western technological components with Chinese equivalents. The Russian strategic community sees prospects for further cooperation particularly in the field of automated control systems and robotics.¹⁹ Russia has also imported unpiloted aerial vehicles, Haval off-road vehicles, and naval diesel engines from China.²⁰

Recently, Russia and China have shown an interest in cooperating on the development of strategic armaments, including joint work on China's new missile launch detection system.²¹ The system, which is based on Russian Tundra satellites and Voronezh ground-based radar stations, was reported to be close to completion in 2020. Since both Russian and Chinese strategic capabilities are intended mainly to deter the United States and its allies, the Russian strategic community sees cooperation in this field as financially and technologically beneficial, while posing minimal national security risks.²² As for now, Russian and Chinese missile defense capabilities are not integrated, but Vassily Kashin, a Russian expert on China's military-industrial complex, believes integration is a possible next step. Integration would be mutually beneficial, he argues, since it gives both countries a longer warning time in the event of a ballistic missile launch by the United States.²³ Other possible strategic cooperation projects include hypersonic technology and the construction of nuclear submarines.

Lack of Trust Still Limits Technological Transfers

Despite political assurances of a partnership that knows no limits, the Russian strategic community assesses that Sino-Russian military-technological cooperation continues to suffer from a lack of trust.²⁴ Although the Russian strategic community has generally been open to the possibility of exporting military hardware to China, budding cooperation on arms sales has introduced significant security concerns.

First, conservative members of the security community have raised fears that China would seek to expand into Russian territory or its areas of interest and that access to Russian weapons would help it achieve this goal. Although the possibility of a Chinese invasion of Russia's Far East is currently considered far less likely than it was 15 years ago, new concerns have emerged in recent years about China's interests in the Arctic and its military presence in Central Asia.²⁵ Some Russian military experts also worry that China could exploit bilateral military-technological cooperation to contain Russia in the case of a future clash of interests in the Asia-Pacific region.²⁶

Second, some experts and officials are concerned that China could outperform Russia in the global arms trade by exporting copied matériel at a lower cost to markets traditionally served by Russia.²⁷ Within the Russian strategic community, China is perceived as highly competitive, using its economic advantage to gain access to Russia's most advanced technology while protecting its own. In September 2020, editors of the industry's leading newspaper, *Military-Industrial Courier*, warned that the arms trade with China was unlikely to result in Russia gaining new technological know-how, yet Russian arms producers would be pressured to give away their own expertise.²⁸ They further cautioned that, by pursuing a policy of replacing Western components in its weapons with Chinese parts, Russia is merely transferring its dependency on one foreign power to another. In the editors' view, Russia would be better served by developing its own defense industry than by seeking closer cooperation with China.

The latter assessments reflect the ambivalent attitude of Russian experts regarding the increased capability of the Chinese defense industry. On one hand, Russian experts are generally impressed with China's achievements and frequently credit Russia for the quick modernization of the Chinese military. According to one assessment, it was due to Russian assistance that the Chinese military machine "made a leap forward by one or two generations of military equipment in most areas."²⁹ On the other hand, Russian experts claim that China's modern fighter planes are the result of reverse engineering of Russia's Su-27.³⁰ The Sukhoi case and other perceived Chinese infringements of intellectual property rights have fostered a deep mistrust of China among members of the Russian strategic community and have led to predictions of new infringements in the future.³¹

Implications for NATO Operations and Transatlantic Security

While Russia's rationale for enhancing military-technological cooperation with China in the 1990s and 2000s was the need for income, it has now evolved to include access to technology. Collaboration gives the two partners access to technology that they would not get independently. China's imports of the S-400 air defense system and Su-35S fighter could give it an advantage in controlling the airspace above Taiwan. A technologically advanced People's Liberation Army could pose military challenges for the United States in the Pacific region, forcing Washington to turn its focus more firmly toward Asia while leaving the North Atlantic Treaty Organization (NATO) with the primary responsibility of protecting Europe.

Starting from 2015, bilateral cooperation was also expanded to include joint military exercises.³² In recent years, China has participated in Russia's strategic exercises, and the countries have carried out joint naval maneuvers in the East and South China Seas, the Mediterranean Sea, and the Baltic Sea, as well as joint air patrols over the Sea of Japan. As a result, the two militaries have become more compatible and synchronized in weapon systems as well as in communications, tactics, and military doctrine.³³ As pointed out above, the Russian strategic community nevertheless assesses that the military significance of Sino-Russian military cooperation should not be overestimated. Critical voices have argued that bilateral military ties are less deep and comprehensive than Sino-Pakistani cooperation, for instance, noting the limited scale of Sino-Russian joint exercises, the lack of joint programs for equipment repair, and the small number of joint technology development projects.³⁴ While the possible integration of Russian and Chinese early warning systems could strengthen each country's deterrence capabilities, Dmitri Trenin points out that the system itself poses a limited threat to transatlantic security and could actually improve global strategic stability.³⁵

Sino-Russian cooperation also limits the impact of Western sanctions on the Russian arms industry and ensures Russia's access to technologies that it is no longer able to obtain from the West. For example, imports of Chinese electronic components and engines make it possible for Russia to complete designs that it lacks the inputs or ability to produce itself.³⁶ Few, if any, nations other than China have sufficient economic leverage to deter Western economic statecraft, which means that Beijing is unlikely to abandon its arms trade with Russia in the near term. However, the disruptive potential of Western sanctions on Russia's arms industry should not be underestimated. In 2017, the United States imposed the Countering America's Adversaries Through Sanctions Act (CAATSA), which states that any country that has significant transactions with Iran, North Korea, or Russia could be sanctioned by the United States. This has hindered some countries' willingness to trade arms with Russia.³⁷ Since the law took effect, Egypt, Indonesia, and Algeria withdrew from plans to buy the Su-35S fighter jet.³⁸ The tense political climate following Russia's invasion of Ukraine may further dampen the enthusiasm of potential buyers who are averse to testing the willingness of the United States to enforce secondary sanctions. In March 2022, for example, India canceled its orders of MiG-29 aircraft, helicopters, and anti-tank weapons.³⁹

Unfortunately for Russia, while a partnership with China might extend a lifeline to its defense industry, it is unlikely to revitalize it, as Russian strategic thinkers doubt that China would find it beneficial to share its most advanced technology with Russia. It also remains unclear whether the relationship is strong enough to overcome the dramatic measures imposed on Russia since its February 2022 invasion of Ukraine. New sanctions imposed by the West are much more severe than the previous iterations, and large reductions of EU imports of Russian gas and oil will have consequences for Russian GDP and public income.⁴⁰ Consequently, the Russian state and its defense industry may become even more dependent upon China for their future development.

The Russian strategic community assesses that China is a prudent partner, pursuing its own foreign policy interests that only partly coincide with Russia's.⁴¹ The limits to their partnership are evident in terms of the two countries' relations with Ukraine. Russian experts on China acknowledge that China has interests on both sides of the war.⁴² As one scholar summarizes: "China supports the territorial integrity of Ukraine, calls on the parties to conclude peace as soon as possible, does not plan to sever economic and political ties with neither Western countries nor Ukraine, but is also sharing Russia's concerns about NATO expansion and will not join the sanctions against Moscow."⁴³ While some

Russian experts assume that China will support the Russian economy in practice if not in words, others assess that China will try to use the situation to strengthen its economic presence in Russia.⁴⁴

Although Russian experts generally approve of Russia's "pivot to China," they admit that China is economically stronger and that Russia falls under a certain dependence.⁴⁵ As long as China has stronger economic muscles and continues to close the gap in military technology, it will be much more likely for Russia to have to adapt to Chinese foreign policy goals than the other way around.

Sino-Russian Military-Technological Cooperation

From Capability Gaps to Technology Partnership?

By Meia Nouwens

Introduction

The Sino-Russian relationship has grown increasingly close in recent years, though it still falls short of a formal alliance. In addition to military-political and military-operational cooperation, bilateral cooperation on military technology through arms sales and limited joint development projects has increased as China's defense technological and industrial bases have modernized. The partnership, according to Chinese analysts, has moved from one in which China imported Russian weapons and platforms to one that is of greater equality between the two countries. While Chinese analysts point to like-minded geopolitical justifications for heightened cooperation in areas of military technology, they also acknowledge ongoing tensions and a lack of trust between the two countries that will prevent further deepening of the relationship. The bilateral military-technical cooperation between China and Russia should be of concern for the North Atlantic Treaty Alliance (NATO). China's policy of military-civil fusion gives it access to industrial secrets and technological innovation from national economies within the NATO alliance through illicit means—such as industrial espionage—as well as through legal means, such as joint ventures, mergers and acquisitions, foreign direct investment, and research and development (R&D) collaboration.¹ This information could potentially be shared with Russia, with Russia also reciprocating. However, persistent political distrust between Russia and China could mean that each country will continue to reserve its most strategic capabilities, as well as information gained from sensitive espionage efforts, for national use only. Further research should be directed at whether this may change depending on how the Russian economy fares following the sanctions imposed on it as a result of its invasion of Ukraine.

Context of the Deepening Sino-Russian Political and Military Relationship

Deepening Sino-Russian ties in the area of arms sales and technology transfers fall within the wider context of an overall deepening bilateral relationship between the two countries. On February 4, 2022, Russia and China publicized a joint statement on their common positions with regards to the world order and their “limitless” bilateral strategic partnership.² The statement seems to have marked the formalization of a new phase in their relationship, though many of the points covered in the document were already present in their existing bilateral relationship. Even following Russia’s invasion of Ukraine, Chinese foreign minister Wang Yi stated that “China is willing to work with Russia to take China-Russian ties to a higher level in a new era.”³ According to some Chinese academics, the bilateral relationship has turned a corner; whereas China was once heavily dependent on the Soviet Union, it has gradually developed a partnership of relative equals with the Russian Federation, each with its own strengths and weaknesses.⁴ The relationship has moved from a period in which the two sides recognized each other as friendly countries in the early 1990s to a comprehensive strategic partnership in the second decade of the twenty-first century.

Chinese views of the Sino-Russian partnership are often also framed within the larger context of common strategic interests and competition with the United States. Hou Aijun from the Chinese Academy of Social Sciences, for example, states that since the 1990s, both China and Russia have acted as stabilizing forces and geopolitical balancing factors in a world order that is unjust and excludes the Global South, and which is “constantly eroded and destroyed” by a revisionist United States seeking to stave off its inevitable decline.⁵

Despite the strong sentiment of deep partnership between Russia and China, such as that expressed by Hou, Chinese academics acknowledge that the bilateral relationship is not truly “limitless.” Hou, for example, explains that areas of mistrust include border security, differences in each other’s political systems, historical grievances, and China’s economic expansion into Central Asia. Some thinkers, like Zhang Deguang, former secretary general of the Shanghai Cooperation Organization, have highlighted areas of concern about Russia’s future trajectory in international relations, although Zhang was generally optimistic despite Russia’s shortcomings.⁶

Science and technology diplomacy has been a significant part of the bilateral relationship since before the fall of the Soviet Union, and against the backdrop of U.S.-China technological competition, it serves China’s geopolitical goal of becoming a global technological leader. According to Luo Hui, former director of the Innovation Strategy Research Institute of the China Association for Science and Technology, science and technology diplomacy helps advance China’s overall innovation strategy while also fulfilling larger diplomatic goals. However, Chinese thinkers ascribe Russia’s pursuit of technological cooperation to public diplomacy efforts to “increase mutual understanding between people.”⁷

Chinese Views of Deepening Military-Technological Relationship

Military-technological cooperation between China and Russia also dates back to the Soviet era, starting in the 1950s with secondments of Soviet experts to job placements in China and the signing of cooperation agreements on issues such as nuclear energy and weapons technologies. Although China today no longer relies on Russia as its primary source of military weapons and platforms procurement

following China's advancement in science and technology and the modernization of its own defense technological and industrial base, Chinese academics still point to Russia's "profound accumulation of basic scientific research" in areas such as materials science, mathematics, physics, aerospace, power efficiency, polar exploration, space science, and others.⁸

According to Li Shuyin, director and researcher with the European Military Research Office of the Department of Foreign Military Studies at the Chinese Academy of Military Sciences, Chinese and Russian military-technological cooperation forms part of their "three-in-one" relationship, which also encompasses military-political and military-operational aspects.⁹ The military-political relationship is based on regular meetings between heads of state, as well as mechanisms for regular meetings at the defense ministerial level and general staff strategic consultations. The military-operational relationship is founded on regular joint exercises, such as the "Peace Mission" series, which seek to build cooperation and mutual trust between each country's armed forces. Lastly, arms sales, technology transfers, and (to a lesser extent) R&D collaboration form the "core of China-Russia military cooperation."¹⁰ This aspect of the relationship has significant historical roots that have shaped modern bilateral ties. China was an important destination for Russian weapons in the 1950s and 1960s, as well as during the Western arms embargo that followed China's crackdown on protests in Tiananmen Square in 1989. Despite the rapid modernization of China's defense industry, in 2021, the country remained Russia's second-largest destination for arms exports, following India.¹¹

The military-technological relationship is governed by the Intergovernmental Commission on Military-Technological Cooperation, which meets yearly and focuses on the procurement of various technologies from each country. In 2015, it was reported the Chinese side was focused on purchases of modern warplanes, ships, and new land equipment, while the Russian side was focused on air and missile defense systems. Chinese arms transfers from Russia also include, in some instances, production licenses, as was considered for the Su aircraft series.

These imports have served the People's Liberation Army (PLA) in multiple ways. They are politically symbolic of support in Moscow and Beijing for the deepening bilateral relationship, while also providing opportunities for China's defense industry to learn about specific aspects of Russian technology to integrate into its own capabilities, such as thrust vector control in Russian aircraft engines.

The practical benefit to the PLA from these types of imports should not be underestimated, nor should arms imports be conflated with trust within the relationship, for reasons outlined further below. Similar to the science and technology partnership, Chinese academics characterize the bilateral military-technological relationship as serving national interests and, ultimately, the country's strategic goals. As Li Shuyin states: "From China's point of view, learning from others and introducing and drawing on relatively mature foreign military-technological achievements can, in a relatively short amount of time, raise China's level of defense modernization, especially in naval and air force weapons modernization, effectively curb hegemonism and power politics, reduce the security pressures it faces, and prevent the infiltration of international terrorist forces."¹²

Li Shuyin argues that arms sales have been an important source of funding and foreign currency for the Russian military-industrial complex. Accordingly, as both sides perceive that they are benefiting from their partnership in the field of military-technological cooperation, analysts expect this relationship to continue into the future.

The nature of this cooperation, however, is transforming from one-sided procurement to equal learning. Just as the general science and technological cooperative relationship has moved on from being characterized primarily by China acquiring knowledge from the Soviet Union (and then Russia), so too has the military-technological relationship. Li Shuyin points to the links between Chinese national sentiment and the historical relationship between China and the Soviet Union, stating that the “Soviet Union’s deep-rooted chauvinism led it to regard itself as the major party and the major power,” which allowed it to determine the nature and amount of military cooperation with China at any time.¹³ China’s economic and technological rise has allowed it to assert its equality within the relationship more confidently and to push back against this perceived Russian chauvinism.

Indeed, the relationship has also evolved as the innovative potential of each defense industrial complex has strengthened. Authors like Li Dapeng, from the Naval Engineering University, already argued in 2015 that “the context of Sino-Russian military-technological cooperation should shift from focusing on procurement of weapons systems, equipment and components to focusing on cooperative R&D and joint manufacturing.”¹⁴

Nevertheless, Chinese analysts also point to obstacles in the deepening of defense technological cooperation between Russia and China. Li Dapeng indirectly references concerns in Russia about Chinese reverse engineering of Russian weapons, stating that “some Chinese-made weapons have similarities with Russian-made weapons in technical genes.”¹⁵ In one relevant case, Moscow suspended the production of the second batch of J-11A/SU-27SK fighters following Beijing’s alleged violation of the coproduction agreement with Russia.¹⁶ Given that Russia is a major player in the global arms trade, China’s relative advantage in terms of manufacturing capacity and production costs could pose problems for Moscow if Beijing ramps up production of its variants of Russia-derived weapons for export. As Li Dapeng notes, Russia’s concern about losing market share as Chinese exports become more cost-effective is a “major obstacle to deepening and expanding Sino-Russian military-technological cooperation.”¹⁷ The modernization of China’s defense industrial base and economic power has afforded Beijing the capacity to manufacture weapons and platforms for export or transfer at subsidized prices.

Looking ahead, arms sales volumes are likely to decline in the future, as China’s defense industry becomes more capable, efficient, and competitive. China and Russia may continue to cooperate instead on the joint development of emerging and disruptive technologies, or on a missile early warning system—technologies that fit into China’s military modernization goals of catching up and overtaking the United States militarily. However, as a result of the war in Ukraine, Chinese military-technological cooperation with Russia becomes more complicated, as it puts Beijing at risk of being targeted with secondary sanctions. Furthermore, Russia’s tech industry is experiencing brain drain as a result of the invasion, which may complicate the two countries’ cooperation in the field of emerging and disruptive technology.¹⁸

Modern Sino-Russian military cooperation is based on mutual self-interest, which includes tilting regional and global balances of strategic power in favor of Moscow and Beijing. While geopolitics will play a major role in the propelling this relationship forward, they also generate certain disruptions. Russia’s invasion of Ukraine and its actions in the early months of the war are exemplary of the potential drawbacks of a “relationship with no limits,” as Beijing has been forced to carefully craft a balanced position to not criticize Russia while also upholding its self-declared principles of non-interference and respect for territorial integrity and sovereignty.

As with the greater political-military relationship, Sino-Russian cooperation is guided primarily by mutual trust, which according to Li Shuyin remains insufficient. Li Shuyin notes that geopolitics contributes to the lack of trust between the two countries, as “some people in China . . . voice dissatisfaction with the obvious disparity in the sale of weapons and equipment to China and India, maintaining that this runs counter to the China-Russia strategic partnership of coordination.”¹⁹

Implications for NATO and Transatlantic Security

The evolution of cooperation between China and Russia in defense technological terms from a supplier-client state relationship to one of greater technological and scientific equality means that NATO faces a potentially stronger bloc. China and Russia have already moved to cooperate on R&D in areas of emerging technology with defense applications, such as artificial intelligence.²⁰ The overall alignment of each side’s interests for geopolitical and financial reasons signals that there is little prospect to drive a wedge between Beijing and Moscow in their effort to deepen defense technological engagement. NATO thus potentially faces an adversary and systemic competitor who can combine significant resources in areas of technological R&D.

The evolution of cooperation between China and Russia in defense technological terms from a supplier-client state relationship to one of greater technological and scientific equality means that NATO faces a potentially stronger bloc.

The implication of this changing relationship is also cause for concern regarding NATO’s own defense innovation strengths in the future. China’s efforts to integrate foreign innovation into its defense technological and industrial base go beyond the Sino-Russian relationship. Indeed, existing research has shown that Chinese military institutions continue to engage with foreign academic and research institutions to develop sensitive technologies with military applications and to improve the skills of Chinese military researchers in relevant techniques and processes.²¹ If Russia and China’s military-technological cooperation deepens in the area of R&D, then NATO ally-originating innovation could also transfer via China to Russia’s military industrial complex, thereby enhancing Russian defense capabilities and weakening the alliance’s technological edge.

However, as Chinese analysts have also pointed out, military-technological cooperation within the bilateral Sino-Russian relationship is not without its obstacles. Lack of mutual trust still plagues the relationship; from a Chinese perspective, it prevents further deepening of the existing relationship. It is therefore unclear whether the reported collaboration on R&D for weapons and capabilities will continue to provide significant strategic value to either military in the long term. Lastly, the question of how Russia’s invasion of Ukraine will impact Sino-Russian defense technological cooperation remains inconclusive.

Russia-China Joint Military Exercises

The View from Russia

By Paul Schwartz

Russian-Chinese joint military exercises have expanded dramatically since the two countries held their first Peace Mission exercise in 2004, and they are of growing concern in the Western analytical community. This article reviews four recent papers written by Russian military experts which offer fresh insights on these joint exercises from the Russian perspective. The experts agree that Russia-China joint exercises are expanding in scope, scale, and intensity, and they provide new details on just how they are expanding. They highlight recent trends such as the increase in holding larger strategic exercises on each other's territory, the addition of joint air patrols, and the likelihood of future joint air and naval deployments. They also discuss Russia's growing interest in using joint exercises to assess Chinese innovations, and (less persuasively) the growing emphasis on interoperability in joint exercises. In the process, the authors offer additional particulars on the expanding scope of joint exercises to include *inter alia* mountain and winter warfare and combined air-ground assault.

The authors also highlight the importance of messaging in joint exercises, which are often designed expressly to demonstrate the two countries' growing military power and the strength of their strategic partnership. In doing so, the authors seem intent on reinforcing the messaging effect by overstating the psychological impact of joint exercises on the West, thus departing to some extent from objective analysis. The authors also highlight that joint exercises are contributing to a growing military convergence. While they agree that the two countries are not currently in an alliance, they emphasize that military relations have expanded and now exceed the bounds of a "normal" relationship. Collectively, the authors' views are fairly representative of the Russian security community, although

they also offer insights of their own on joint exercises. While the papers are not wholly objective—overstating the importance of interoperability, for example, as well as the potential for joint operations against the West—they offer valuable details on the nature and objectives of joint exercises and on the views (and hopes) of the Russian analytical community regarding their future direction.

Nature and Trajectory of Russia-China Joint Military Exercises

The Russian strategic community has commented extensively on the continuing expansion of Russia-China joint military exercises, which have increased markedly in terms of their scope, scale, and frequency and through the addition of new exercise series. Russian experts tend to view these trends as further evidence of a growing military convergence between the two countries. The Russian authors covered in this paper are no exception, although they each highlight different dimensions to illustrate this trend.

Vladimir Vinokurov, professor at the Diplomatic Academy of the Russian Ministry of Foreign Affairs and vice president of the League of Military Diplomats, reports that Russia and China held two major joint exercises in just a three-month span in 2019: the first in July followed by the Tsentr strategic exercises in September.¹ He notes that these were viewed as regular, routine events, indicating that joint exercises are growing in both scale and frequency. This is further evidence of what he sees as a general strengthening of connections in the military sphere.² Alexander Yermakov, an independent military analyst and member of the Russian International Affairs Council (RIAC), likewise highlights the growing frequency of joint exercises, pointing to the recent Zapad/Interaction-2021 strategic multi-country exercises held in August 2021 followed just one month later by Peace Mission counterterrorism exercises held in September. Coming in such close proximity, these exercises reflect a deepening of cooperation between the two sides in the sphere of defense.³

Yermakov notes that joint exercises are increasing not only in frequency but in scale: for instance, Zapad/Interaction-2021 involved 13,000 People's Liberation Army (PLA) troops, 200 armored vehicles, 90 artillery pieces, a Russian motorized rifle unit, and more than 100 planes and helicopters.⁴ A recent RIA Novosti article on Russia-China military relations adds that joint exercises are now held at sea, on land, and in the air, having expanded to encompass all of the principal military domains. More ominously, this article also notes that recent joint exercises are placing greater emphasis on joint repulsion of enemy attacks, citing the West as the likely target of these efforts.⁵ The article then quotes Vasilii Kashin, director of the Centre for Comprehensive European and International Studies at the Higher School of Economics, who argues that joint exercises are becoming more advanced and more high-tech as well. As further evidence, the article points to the recent flurry of joint exercises such as the Vostok-2018 and Tsentr-2019 strategic exercises held in Russia and the Joint Sea naval exercises held in the Baltic and South China Seas.⁶

Vinokurov and Ruslan Polonchuk, a military expert at the Russian Academy of National Economy and Public Administration (RANEPA), both highlight the recent joint air patrols conducted over disputed waters in the East China Sea. They contend that joint air patrols represent an expansion of Russian-Chinese joint exercises to include joint deployments. By joint deployments, they are likely referring to a range of potential activities that the two sides could undertake, including combined air and naval patrols, port visits, search and rescue operations, and other joint peacetime activities. Vinokurov indicates that these are likely to become a routine part of the Russia-China joint exercise program,

since they demonstrate the two countries' readiness for further collaboration in this area.⁷ Going forward, Polonchuk believes that joint activities will expand even further to include joint naval "show-the-flag" deployments.⁸

Polonchuk also highlights the recent expansion of Russia-China joint naval exercises to include new participants—most notably Iran—as another important development. He argues that joint naval maneuvers with Iran demonstrated a growing coordination on joint maritime activities between the three countries with a distinctly anti-American character, coming as they did amid escalating tensions between the United States and Iran.⁹

The group of experts cited above indicate that joint exercises are becoming more important for both China and Russia. Polonchuk notes, for example, that joint exercises have increased in importance over the last several years, while arms sales between the two sides have declined, indicating that joint exercises may eventually become the main line of effort in Russia-China military affairs.¹⁰ The PLA's willingness to continue joint exercises with Russia despite Covid-19 risks was cited separately as evidence of their growing importance to China.¹¹ Yeramakov marks the recent trend to appoint high-ranking military commanders to lead joint exercises as further evidence of their increasing importance. As an example, he cites the appointment of Li Zuochen, a member of the People's Republic of China (PRC) Central Military Commission, to command Chinese forces during Zapad/Interaction-2021.¹²

The authors all agree that the recent expansion of Russia-China joint exercises is contributing to a growing strategic partnership between the two countries, a trend that is likely to continue. The RIA Novosti article views this as part of a larger trend toward increased defense cooperation, which has now reached a "level unprecedented over the past half-century."¹³ It further claims that joint exercises are so ingrained that they have now become a "tradition"—a novel though not unreasonable way of characterizing joint exercises, given their growing scope, scale, and frequency.¹⁴ In any event, all of these factors imply that joint exercises are likely to continue on their current trajectory, with important implications for the West.

The authors are correct that joint exercises are expanding as the two countries have continued to add new series of exercises. They are also correct in highlighting that joint exercises are increasing in scope, scale, and frequency. The authors go further, offering valuable insights on just how joint exercises are expanding, all of which warrants further attention. For example, Polonchuk could well be correct in projecting an increase in joint deployments, which offer yet another way for the two sides to engage in joint military activities at low cost and to achieve political and military effects, with important implications for Asia-Pacific and transatlantic security.

The authors are also quite correct that joint exercises are a critical component of the Russia-China strategic partnership, complementing arms sales, key leader engagements, and defense research and development as the main forms of military cooperation. As joint exercises have developed, each country has become the other's most important joint exercise partner. Joint exercises in turn reflect a growing convergence at the strategic level, with Moscow and Beijing now aligned on the most important issues facing them in the international arena. This includes a shared desire to limit U.S. power and to usher in a multipolar world order. In the military sphere, this convergence is reflected in their joint opposition to U.S. missile defense, prompt global strike, and the militarization of space.

Viewed in this light, joint military exercises are part of a larger combined effort by Russia and China to improve their respective military capabilities and expand their influence, while simultaneously signaling their displeasure with U.S. and Western policies.

Military Objectives of Joint Exercises

The authors of these four papers also emphasize that military exercises are an effective means to build experience and to promote knowledge transfer. As an example, Vinokurov discusses the recent Tsentr 2019 exercises held in central Russia, where Russian and Chinese bombers practiced joint interdiction of opposing ground forces, exposing the two sides to their respective methods of attack.¹⁵ The RIA Novosti article highlights the use of joint exercises to develop certain specialized capabilities. As examples, it discusses two recent joint exercises in which Russian and Chinese forces practiced winter and alpine combat operations. It then quotes Kashin, who notes that joint exercises are becoming more advanced and more high-tech, while focusing increasingly on operations of the kind needed to confront an advanced foreign adversary, which he says could only be the United States.¹⁶

Polonchuk agrees, even though he asserts that China is benefiting militarily more than Russia from such exercises, a view shared by most Western analysts. He notes, for example, that the Joint Sea naval exercises have been especially important for the PLA Navy, since they are designed to focus more on tasks facing the PRC, while exposing the PLA Navy to the methods used by the more experienced Russian navy. Polonchuk likewise points out that China is using Peace Mission exercises to prepare the PLA for counterterrorist actions in Central Asia, which he notes could be used against the PRC's indigenous Uighur population.¹⁷

Interestingly, Polonchuk argues that this trend is changing, and that combined military exercises are becoming more balanced, or more “multi-vectored” as he puts it. Whereas before, they were used mainly as a means for the PLA to learn from the more experienced Russian military, joint exercises are increasingly benefiting both sides. He notes, for example, that Russian ground forces gained important insights from their exposure to Chinese motorized rifle units during recent joint exercises. Based on this, he advocates for the two to hold additional joint exercises involving motorized rifle units so they can hone their skills in urban combat. He also suggests that Russian forces hold additional joint exercises on Chinese ranges as they did during Zapad/Interaction-2021, both to gain more exposure to the PLA's new theater command system and to weigh its pros and cons.¹⁸

Yermakov concurs, claiming that Zapad/Interaction-2021, held in China, “showed a definitively new stage in the cooperative military preparations of both nations,” with Russian units exercising for the first time using Chinese systems—especially the PLA's new wheeled armored vehicle, a system for which there is no current analog in the Russian military.¹⁹ Yermakov notes that “the careful study and use of Chinese technology in maneuvers made up the innovative aspect of this drill.”²⁰ Moreover, he notes that the study of Chinese experimental weapons by the army was extremely useful and should therefore be continued.

Two papers commented on the growing emphasis on interoperability in recent joint military exercises, a subject that has attracted a good deal of Western attention as well. Kashin contends, for example, that joint exercises are focused increasingly on interoperability, which enhances the potential for joint operations against a major foreign adversary. He provides little support for this claim,

however.²¹ Yermakov likewise highlights the new levels of military integration achieved during Zapad/Interaction-2021, which he cites as the main innovation of these exercises. Specifically, he notes that the two sides established a joint headquarters, with a unified command and control system to guide operations, which enabled them to carry out coordinated air strikes and joint helicopter-borne assaults.²² However, Yermakov seems to carry his argument a bit too far by implying that, as a result, Russian-Chinese joint exercises now exhibit a demonstrable level of mutual cooperation comparable to that of the North Atlantic Treaty Organization (NATO), although he cites a Chinese source to convey this point.²³

Russian military experts tend to give greater weight to the military benefits of joint PRC exercises than do many Western analysts, who are more prone to believe that such exercises are carried out primarily for their messaging effects, with less emphasis on their military benefits. Western analysts have pointed out, for example, that Russia-China joint exercises have in some cases been carefully scripted, and at times conducted in parallel in what were essentially separate side-by-side exercises.²⁴ They also tend to believe that the Chinese military benefits more from joint exercises than its Russian counterpart, by allowing the PLA to learn from the more experienced Russian armed forces.²⁵

Western analysts also tend to be more skeptical of claims of increased interoperability in Russia-China joint exercises, finding it hard to take them seriously in light of the extremely low likelihood that the two countries would actually engage in joint operations. Such views are reinforced by exaggerated claims such as the one cited by Yermakov, as there is virtually no evidence that Russia and China have anything close to the kind of joint command and control systems and interoperability standards employed by NATO.

Political and Messaging Effects of Joint Exercises

Consistent with the views of the Russian security community, the authors of the four articles under discussion also recognize that Russia-China joint exercises have an important messaging component, one that benefits both countries by demonstrating the growing military strength of their strategic partnership, even though such messages are not always directed toward the West. The authors stress that achieving strategic and political effects remains an important driver for joint exercises. Polonchuk, for example, notes that the PLA uses joint exercises to demonstrate its growing ability to combat both traditional and nontraditional threats. He also indicates that Peace Mission exercises have had a stabilizing effect on the situation in Central Asia by reassuring the countries in the region of Russian and Chinese support.²⁶

The authors all tend to agree, however, that one of the primary purposes of joint exercises is to send a message to the West about the growing strength of Russian-Chinese military relations. Polonchuk argues, for example, that holding joint naval drills in locations outside of one or both sides' traditional operating areas—such as the Baltic Sea, in the case of China—displays the growing military power of the two countries for Western audiences.²⁷ Likewise, Vinokurov notes that the recent joint air patrols over the East China Sea “elicited an unpleasant reaction from U.S. allies” by demonstrating the growing military collaboration between Russia and China.²⁸

Polonchuk concurs, citing joint air patrols as an important tool for achieving long-term political goals in the Asia-Pacific region, although he does not specify what these goals are.²⁹ The RIA Novosti

articles goes even further, arguing that joint exercises are used to convey to potential adversaries the two countries' growing ability to counter common enemies.³⁰ Going forward, Polonchuk believes that Moscow and Beijing will continue to pursue one-time events (i.e., joint exercises and deployments) that have strong signaling effects but carry a low probability of causing unwanted escalation.³¹

Finally, it should be noted that the authors often use their own papers as vehicles to reinforce the messaging effects of joint military exercises. To avoid attribution, however, they often use the rhetorical device of citing Western or Chinese sources when discussing the growing threat from Russia-China military relations. Thus, while these papers contain much useful information, they should not be considered wholly objective in their characterization of Sino-Russian joint exercises, which are used to some extent to amplify the signaling effects of the actual joint exercises.

As an example, Vinokurov cites a recent *New York Times* article to claim indirectly that the “the West . . . is particularly disturbed by the military-technical cooperation (MTC) of Russia and China.”³² He takes pains to show that the West has good reason to be concerned by discussing the many recent measures taken by Russian and China to strengthen cooperation in the security sphere, including new joint agreements, summit meetings, and of course joint exercises. He concludes by citing U.S. Fleet Admiral Philip S. Davidson—then commander of the U.S. Pacific Fleet—who said that Russia continues to be an existential threat to the United States and that by the middle of the next decade the United States could lose its leading edge to China.³³

It should also be noted that the Russian security community tends to play up the implications of Russia-China joint exercises beyond their actual effects. Russian analysts often suggest by various means that Moscow and Beijing will increase their counterbalancing efforts toward the West should relations between Russia, China, and the West deteriorate further. They also imply that at some point joint exercises could expand to include serious preparations for joint military operations against the West. In the view of most Western analysts, however, such claims tend to lack credibility given the two countries' demonstrated unwillingness to become entangled in each other's principal security disputes.

Implications of Joint Exercises for Russia-China Relations

The Russian security community tends to agree that joint exercises are contributing to a growing military convergence between Russia and China, which is driven primarily by their increasing confrontation with the West. The authors of these articles likewise acknowledge that joint exercises are contributing to a growing strategic partnership between Russia and China, though none of the authors believe that an outright military alliance is imminent. The four authors differ, however, regarding the degree to which current military relations are already approaching an alliance.

Polonchuk concedes that Russian-Chinese military relations cannot be considered a military alliance either in theory or in practice, mainly because an alliance would be counterproductive. Today, for example, the Kremlin is in a position to mediate tensions between China and India, but this would no longer be possible if Russia and China were in a true alliance. Yet, he implies that recent joint naval exercises between Russia, China, and Iran should be considered a show of solidarity amid escalating tensions between the United States and Iran.³⁴

Yermakov asserts that the two countries are far from being involved in a true military alliance, and are not working toward one either, although he offers no explanation for why this is the case. At the same time, he notes correctly that the frequent and complex military drills held by both countries should put to rest recurring claims in the West that conflict between Russia and China is inevitable due to persistent mistrust.³⁵ Kashin points out that joint exercises have helped to build trust between the two sides, noting for example that Russian and Chinese soldiers and officers have grown well acquainted with each other through recent joint exercises. He adds that this growing awareness of each other's military capabilities "allows them to feel confident, separate myths from reality, [and] understand what capabilities they are actually developing."³⁶

Vinokurov appears more optimistic about the possibility of alliance. He notes that China and Russia have developed their connections to the level of mutual partnership and strategic cooperation, and that joint military activities now "exceed the bounds of normal military cooperation."³⁷ This he attributes to the two countries' deteriorating relations with the United States. He argues, however, that talk of an alliance is premature, mainly because China is not yet ready for one—perhaps implying indirectly that Russia is more open to an alliance, although he falls short of stating this outright. Interestingly, he claims that President Xi himself recently ruled out an alliance with Russia during a speech before the PRC Central Committee. At the same time, Vinokurov claims that the national security of Moscow and Beijing are now understood as a common interest. As a consequence, they can be expected to "react effectively to [counter] new or well-established threats."³⁸ Thus, faced with the growing threat from the United States, at some point further military rapprochement if not an outright alliance would become inevitable.

The RIA Novosti article carries this argument the furthest, implying that the two already have an alliance of sorts. According to this article, "although the countries do not intend in principle to enter into a formal military alliance, it is sometimes referred to as an 'undeclared' one." While conceding that joint exercises are not directed against third countries, at the same time, it discusses Russia and China's "growing ability to rebuff a common threat," while contending that the recent increase in joint strategic exercises is intended to work out "the [repulsion] of potential aggression."³⁹

The authors' views on the potential for an outright military alliance are characteristic of Russian discourse in this area, but they should be taken with a grain of salt. While the Russian security community rightly believes that strategic relations between Russia and China are growing and that countering U.S. interests remains an important driver, it mostly recognizes that the two sides are unlikely to forge an actual alliance anytime soon absent further deterioration of their relations with the West. Thus, talk of an impending or outright military alliance with real mutual defense commitments should be considered mainly as a messaging exercise.

It is worth adding that these diverging views on the contribution of joint exercises to a growing military partnership between Russia and China are quite typical for both the Russian and Western analytical communities. They reflect ongoing debates within both communities about how best to characterize Russia-China relations and where they are ultimately heading. Despite the increasing levels of defense cooperation between the two countries, military relations still fall well short of an outright alliance. For example, Moscow and Beijing have not agreed to collective defense commitments, and there is little prospect that they will do so. There is likewise little prospect that the two would conduct joint military operations anytime soon, with the possible exception of Central Asia where they could conceivably act jointly to combat an armed terrorist threat.

While the Russian security community rightly believes that strategic relations between Russia and China are growing and that countering U.S. interests remains an important driver, it mostly recognizes that the two sides are unlikely to forge an actual alliance anytime soon absent further deterioration of their relations with the West.

Put simply, neither country has any desire to become embroiled in key disputes involving the other. Russia has no interest, for example, of becoming embroiled in a future conflict with the United States over Taiwan. China likewise has no desire of being drawn into an armed conflict with the West, for instance over Ukraine. Nor do the two countries rely on each other for extended deterrence, since both are quite capable of deterring attacks on their homelands. Based on this, the likelihood of an alliance remains low.

At the same time, as Vinokurov points out, military relations between Russia and China have grown beyond the “bounds of normal military cooperation,” indicating quite correctly that the two countries have grown much closer both strategically and militarily than is typical of a purely transactional relationship. Instead, military cooperation has broadened and deepened, and has become increasingly become institutionalized as both sides have continued to benefit from joint activities. Military relations are complementary, helping to strengthen the armed forces and defense industries of both countries if often in different ways. This continuing ambiguity has made it difficult for analysts in both Russia and the West to characterize Russia-China military relations and to say definitively where they are heading.

Conclusion

The four articles reviewed in this paper, which are fairly representative of the Russian security community, offer fresh perspectives on Russia-China joint military exercises, even though much of what they say is already familiar to Western scholars. Most Western analysts would agree with the authors that joint exercises between the two countries are expanding. However, their papers offer deeper insights on just how they are expanding and what that portends for the future. Based on their findings, for example, they have argued persuasively that we should expect to see more joint deployments, including joint naval deployments and deployments in the transatlantic region, to highlight the growing reach of Russian and Chinese military power. They have also argued quite plausibly that we can expect joint exercises to become more balanced and more strategic in their focus, including an increase in joint exercises held on Russian and Chinese territory. They also argue quite reasonably that we can expect to see more exercises involving third parties, such as Iran. The recent joint naval exercises involving Russia, China, and South Africa are a good case in point.⁴⁰

The authors’ predictions about the future direction of Russia-China joint exercises also seem quite sound, at least based on the conditions in effect when these papers were first written. At the time,

joint exercises appeared poised to continue at high levels and to expand even further, and the authors have made good arguments on just how they would do so. The authors have also focused quite appropriately on the importance of messaging in joint exercises to achieve political effects, which will continue to drive and shape joint exercises. Discussions of the military benefits of joint exercises are also quite useful in highlighting aspects of joint exercises that have received less attention in the West, such as the incorporation of aerial interdiction and winter warfare. The authors have also argued persuasively that exercises are becoming more strategic while taking on greater importance for both sides, even though they have tended to overstate the importance of interoperability and the likelihood of joint operations against the West.

Notably, the authors made their predictions based on the implicit assumption that joint exercises would continue on their current trajectory. This is no longer a given, however, since the four articles discussed here were all written prior to Russia's full-scale invasion of Ukraine in early 2022. The events in Ukraine have a high likelihood of altering the course of Russia-China joint military exercises, if not necessarily in ways that one might expect. In the short run, Russia is likely to remain too distracted by the Ukraine conflict to sustain joint exercises with China at pre-conflict levels. In addition, the continuing drain on Russian resources, including loss of equipment and personnel, will make it more difficult for Moscow to free up forces to participate in military drills with China, although this will likely impact large-scale joint ground force exercises more than others.

Despite such limitations, given their military and political importance joint exercises are almost certain to continue, although they are likely to be channeled into areas less affected by the Ukraine conflict—such as counterterrorism, joint naval exercises, and table-top exercises. Based on the PRC's continuing focus on its maritime territorial disputes and its reluctance to become embroiled in the ongoing Ukraine conflict, we could very well see an increase in joint naval exercises and joint air patrols in the Western Pacific. In this regard, the recent joint air patrols held by the two sides in May 2022 over the Sea of Japan and the East China Sea are a good indication of the direction future cooperation may take.⁴¹

In the long run, the impact on joint exercises is more uncertain. It would be easy to conclude that China would have less interest in exercising with a Russian military that has failed to perform that effectively in Ukraine. While this is possible, countervailing factors make this outcome less likely. First, for all its faults, the Russian military has acquired a great deal of hard-earned combat experience in Ukraine, especially in high-end combat operations. Even though Russian forces have suffered a number of major reverses, they have also had notable successes in Ukraine, especially in the south and increasingly in the Donbas region as well.

What makes Russia's combat experience in Ukraine especially valuable is the fact that it has been acquired against an adversary that has received extensive training and equipment from the United States and its allies. When added to its recent military experience in Syria, the low-scale war it waged in Ukraine from 2014 until February 2022, and its 2008 campaign in Georgia, Russia will have much to offer China regarding the latest U.S./NATO weapons and tactics. These lessons would be especially valuable for the PRC, a country that has not engaged in serious armed conflict since its 1979 campaign in Vietnam.

Moreover, there are few countries outside of Russia that could serve as an effective partner for China for conducting complex joint military exercises. No other country willing to exercise with China has

anywhere near the kinds of military capabilities and experience held by the Russia military. Lastly, and perhaps most importantly, the very military challenges that Russia has encountered in Ukraine—so clearly linked to the vigorous Western military backing received by Ukraine—represent a common security challenge for both Russia and China. Developing realistic military solutions to counter future direct or proxy confrontations with the West as informed by the Ukraine conflict will provide a strong incentive for Russia and China to maintain or even expand their current level of defense cooperation, with joint exercises likely to play an important role.

Chinese Strategic Views on Joint Military Exercises with Russia

Drivers, Trends, and Implications

By Brian Hart and Bonny Lin

Introduction

Recent years have witnessed a considerable strengthening of relations between China and Russia. Chinese president Xi Jinping’s decision to meet with Russian president Vladimir Putin and issue a historic joint statement in February 2022—just weeks before Russia invaded Ukraine—was widely seen as a signal that China is doubling down on the China-Russia relationship.¹ Beijing’s subsequent refusal to criticize Russia’s invasion further solidified this view in the United States and its allies and partners.

Military cooperation through joint exercises has been an important driver behind the strengthening of the China-Russia bilateral relationship. Unlike Russian arms sales to China, which have waxed and waned in importance over the years, China-Russia joint military exercises have remained a robust area of military cooperation. Between 2003 and 2021, the two countries participated in over 60 military exercises, including both bilateral and multilateral exercises. The overwhelming majority of these were held since 2013. Early signs indicate that Beijing and Moscow are continuing to prioritize joint exercises, even in the wake of Russia’s invasion of Ukraine: the two countries participated in a joint aerial patrol over the Sea of Japan, the East China Sea, and the Western Pacific just three months after the start of the invasion.²

Several different factors drive China’s participation in joint exercises with Russia. First, Chinese strategists consider joint exercises a unique means for the Chinese People’s Liberation Army (PLA) to gain overseas operational experience. In the early years of China-Russia joint exercises, the PLA

focused on learning from the more experienced Russian military, but it has increasingly positioned itself to gain experience as an equal—or even more senior—partner. Second, authoritative Chinese writings make clear that, despite officials’ claims that exercises are not aimed at “third parties,” Beijing considers joint exercises with Russia to be an important tool of deterrence vis-à-vis the United States and its allies and partners. In recent years, the two sides have timed and positioned their exercises in response to specific geopolitical developments to maximize signaling power. Third, exercises provide a means of collectively shaping security dynamics within the region, especially through exercises linked to the China-led Shanghai Cooperation Organization (SCO). Chinese thinkers specifically see opportunities to use multilateral SCO exercises with Russia to improve China’s image among regional countries and reassure China’s neighbors about Beijing’s willingness to play a supportive role in the region. Finally, Chinese experts repeatedly point out that joint exercises with Russia play an important role in strengthening and sustaining the broader bilateral relationship.

This chapter examines each of these elements, with a focus on analyzing recent texts and statements from authoritative sources and Chinese analysts. It concludes with an examination of broader implications and potential trends that may emerge within China-Russia joint military exercises, especially in the wake of Russia’s war in Ukraine.

Gaining Military Experience

For China, which has not engaged in a large-scale military conflict in more than four decades, military exercises with Russia are a unique opportunity to gain military experience. *Science of Military Strategy*, an authoritative textbook published by China’s National Defense University, details the benefits of joint exercises to China’s broader military modernization efforts. It notes that, through joint exercises, the PLA “can not only understand the geographical conditions or sea conditions of overseas mission areas, but also accumulate troop training experience, cultivate joint operations awareness, and improve the organization and command capabilities of command agencies.”³

Conducting joint exercises with Russia enables the PLA to gain experience in operating in areas far beyond China’s borders. In 2015, the two countries participated in joint naval drills in the Mediterranean Sea focused on navigation safety, at-sea replenishment, escort missions, and live fire exercises. China and Russia had previously held naval exercises in the waters of the Pacific but had not ventured as far as the Mediterranean.⁴

Joint exercises also offer the PLA opportunities to gain operational experience in a growing variety of domains. The first several exercises between China and Russia were largely land-based and focused on counterterrorism operations. However, recent years have seen China and Russia significantly widen the aperture of their exercises. The two countries held their first joint naval exercise in 2012 and have conducted several since. In October 2021, China and Russia conducted their first joint naval patrol, which Zhang Junshe, a senior research fellow at the Naval Research Academy, described as being of “vital importance” for practicing real-world drills.⁵ China and Russia also expanded their cooperation into conducting joint aerial patrols over the Western Pacific Ocean. The first of these came in 2019, with three additional patrols in 2020, 2021, and 2022.

Chinese experts do not consider joint exercises to be vanity projects; they describe the exercises as having substantive value. An article in the Chinese military magazine *Tanks and Armored Vehicles*

describes joint exercises with Russia as “highly practical” and featuring “joint planning, joint operational synergy, long-range delivery capabilities and military firepower strikes, and integrated joint command systems and joint logistical support capabilities.”⁶ Chinese experts also frequently emphasize the benefits that the PLA can reap by learning from the Russian military’s decades of experience competing with the United States and its allies.⁷

However, this dynamic is evolving as the PLA’s capabilities grow and as China widens its lead over Russia in terms of overall national power. Instead of focusing on how China can learn from Russia, Chinese commentators now often emphasize that both sides can benefit from military exercises, with Russia learning from operating with China’s more modernized forces. For example, a 2016 commentary notes that the Russian naval fleet is largely comprised of outdated Soviet-era vessels and equipment, while Chinese vessels have largely been built in the twenty-first century.⁸ Another Chinese expert argues that Russian battalion tactical groups (BTGs) “are only suitable for the kind of battlefield in East Ukraine that does not emphasize movement warfare, and are easily defeated on high-intensity battlefields by advanced adversaries like the U.S. military.”⁹ This analysis concludes, “[Chinese] composite battalions have significantly surpassed the Russians in terms of weapons and equipment performance,” but it acknowledges Russian BTGs have the advantage of being battle-tested, while Chinese battalions do not.¹⁰

Even more significantly, China has begun to flip the status quo by taking on a leading role in exercises while Russia participates from a more junior position. The “Zapad/Interaction-2021” exercise (also known in Chinese as “Western-Joint 2021”) was the first major example of this. Official PLA media described it as the first time that Russian forces participated in exercises held entirely in China and led by the PLA, and that Russian forces used Chinese weaponry.¹¹ Li Shuyin, a researcher at the Academy of Military Sciences and an expert on Russian military issues, emphasized the uniqueness of Zapad/Interaction-2021, describing it as “a change of roles” and an opportunity to create a joint exercise “brand” mainly focused on China’s military.¹²

Deterring the United States and Its Allies

Another emerging trend in China-Russia joint exercises is an increased willingness to use the exercises in a more provocative manner to signal to third parties. Chinese officials and state-run media sources have frequently asserted that joint exercises with Russia are for bilateral purposes and not aimed at third parties. In the runup to the first China-Russia bilateral exercise, Peace Mission 2005, China’s then-defense minister Cao Gangchuan stated that military cooperation (including joint exercises) “is not targeted at any third party,” and instead it “serves the interest of regional and world peace.”¹³ China’s Ministry of National Defense spokesman Wu Qian made very similar statements about a recent May 2022 joint air patrol, emphasizing the patrol “did not target any third party, and has nothing to do with the current international and regional situations.”¹⁴

Yet, authoritative sources indicate the opposite is true. China’s *Science of Military Strategy* includes an entire section on the role of military exercises within its chapter on strategic deterrence. The 2020 version of the textbook states:

Military exercises against specific threats are not only effective methods of military training but also an important way to implement strategic deterrence . . . The exercise not only

demonstrates the Chinese army's combat capabilities to adversaries, but also causes doubts, making them uncertain about our intentions and making it difficult to determine whether we are conducting routine training, maintaining close diplomatic relations, or taking the opportunity to move into actual combat operations, thereby causing psychological panic and conduct a deterrent effect.¹⁵

Chinese experts and commentators also frequently contradict official statements. Qin An, director of the China Institute of Cyberspace Strategy and a frequent commentator on foreign policy issues, notes that large-scale exercises with Russia showcase the countries' "determination and will" and play a role in deterring adversaries.¹⁶ He specifically highlights the "strategic significance" of the exercises in warning the United States, the United Kingdom, Japan, and France.¹⁷

The use of joint exercises as a tool for deterrent signaling to third parties is by no means a new phenomenon. What is new is the bolder and more direct way that Beijing and Moscow are willing to use exercises to send signals. Amid negotiations over the first China-Russia bilateral exercise (Peace Mission 2005), Beijing sought to hold the exercise in Fujian Province, the closest mainland Chinese province to Taiwan. Russia pushed back in fear of escalation and being pulled into a Taiwan Strait conflict, and the two sides eventually settled on holding exercises in Shandong Province, well to the north of Taiwan.¹⁸

The use of joint exercises as a tool for deterrent signaling to third parties is by no means a new phenomenon. What is new is the bolder and more direct way that Beijing and Moscow are willing to use exercises to send signals.

Amid growing tensions with the United States and its allies, China and Russia have demonstrated their willingness to use joint exercises in more targeted ways in response to specific geopolitical developments. Just two months after the Permanent Court of Arbitration ruling that invalidated China's claims over much of the South China Sea, China and Russia launched Joint Sea 2016, a naval military exercise, in the South China Sea.¹⁹ Both countries stated this exercise was not directed at a third country, but the uniqueness of the exercise and its timing were widely seen as a response to the tribunal's ruling; Joint Sea 2016 remains the only naval exercise the two countries have held in the South China Sea.

More recently, in May 2022, China and Russia conducted a joint aerial patrol over the Sea of Japan and the East China Sea that coincided with a summit of the leaders of the Quadrilateral Strategic Dialogue (Quad) in Tokyo. The patrol—which included four Chinese H-6 bombers, two Russian Tu-95 bombers, and one Russian Il-20 electronic intelligence aircraft—passed through the air defense identification zones of Japan and South Korea, leading both countries to scramble their own planes.²⁰ Chinese officials maintain this was a regular exercise that has taken place every year since 2019.²¹ However, the timing of the patrol, coupled with the fact that all three previous aerial patrols were held in the second half of the year, made it clear the exercises were directed at the Quad summit. The patrol was also the first joint exercise since Russia's February 2022 invasion of Ukraine and was therefore widely seen as a symbol of Beijing's continued alignment with Russia.

Shoring Up Regional Stability and Security

A third major driver for China is a desire to use joint exercises with Russia to shape security dynamics within China and along its periphery. This includes deterring perceived terrorist or separatist threats and reassuring neighboring countries of Chinese and Russian intentions and capabilities.

In addition to deterring the United States and its allies, China and Russia both seek to use joint exercises to deter perceived internal and external threats from terrorism and separatism. Beijing and Moscow share similar threat assessments that the United States and its allies aim to encircle and isolate China and Russia and undermine them by provoking “color revolutions.” China is particularly worried about the possibility of instability or separatist activity spilling over from Central and South Asia into its western Xinjiang and Tibet regions.²²

The SCO is an important part of Beijing’s efforts to counter these perceived threats. China’s *Science of Military Strategy* predicts that counterterrorism will continually grow in importance for China, and it notes that strengthening SCO-related counterterrorism exercises will be a key factor in responding to the threat.²³ From Beijing’s perspective, large and complex exercises with Russia (and other SCO countries) help to prepare China and partner countries to deal with these issues while also deterring would-be terrorist or separatist groups that might threaten stability.

On top of this, bilateral and multilateral exercises with Russia play a role in shaping perceptions within governments in the region. First and foremost, they aim to help convince neighboring countries that China and Russia have both the capability and the will to address threats to security and stability in the region. Joint exercises simultaneously aim to ease worries in neighboring countries about Beijing’s intentions. China’s *Science of Military Strategy* emphasizes that China must go to lengths to ensure that it adheres to international laws, norms, and procedures in conducting exercises with regional partners, since doing so increases those countries’ perceptions that China respects them and their interests.²⁴ In this light, joint exercises are viewed by China as not just a practical means of enhancing operational capabilities but also an important tool for peripheral diplomacy.

Supporting the Broader China-Russia Relationship

As one Chinese commentary puts it, joint exercises are “the most sensitive activity two countries can partake in.”²⁵ Thus, they naturally play an important role in building trust between the Chinese and Russian strategic communities and strengthening the broader China-Russia bilateral relationship.

While Chinese and Russian leaders have repeatedly stressed that they share a strong relationship, there is nevertheless a considerable amount of distrust between them. In particular, Moscow harbors concerns about Chinese theft of Russian intellectual property (IP) with respect to military technologies and worries that China may ultimately seek to capitalize on its IP thefts to compete with Russia in the global arms market.²⁶

Joint military exercises can overcome some distrust by facilitating exchanges at multiple levels between the Chinese and Russian military and strategic communities. Recent joint exercises such as Zapad/Interaction-2021 witnessed the two militaries not just jointly conducting exercises but actively collaborating in planning and commanding the exercises.²⁷ Exercises also afford opportunities for the two countries’ military leaders to meet and publicly demonstrate high-level cooperation. Following

major military exercises in 2018, Central Military Commission vice chairman Zhang Youxia and Russian defense minister Sergei Shoigu met for talks in Beijing. In a statement following the meeting, Zhang commented that the “China–Russia comprehensive strategic coordination partnership has reached an all-time high.”²⁸

Exercises also enable China and Russia to increase trust and transparency by demonstrating their military equipment to each other, as well as the strengths and weaknesses of their forces. Several important Chinese platforms participated in the Zapad/Interaction-2021, including the KJ-500 airborne early warning and control aircraft, J-20 and J-16 fighters, Y-20 transport planes, and surveillance and combat drones. All in all, official Chinese media note that more than 80 percent of the Chinese equipment used in the exercise was new, giving Russia a close-up look at some of China’s most advanced systems.²⁹ Russia has taken this a step further by intentionally using certain equipment, such as the advanced S-400 surface-to-air missile system, in exercises with China with the hopes of selling those items to the PLA. In this way, exercises play an important part in building trust and transparency within the broader bilateral relationship, but they also directly facilitate other forms of military-to-military cooperation, such as arms sales and high-level exchanges.

It is important to note, however, that there are limitations at play. One issue is the language barrier that exists between their militaries. Unlike North Atlantic Treaty Organization (NATO) countries, which typically conduct exercises in a shared language (English), China and Russia communicate using their respective languages. The PLA has insisted this is a non-issue and that “soldiers from the two countries could communicate with body language, simple English and even eye contact.”³⁰ There have also been reports of Chinese officers learning Russian for certain joint military exercises.³¹ However, during the Zapad/Interaction-2021 exercises, the two countries used a bilingual command information system to ensure that both sides were able to fully understand commands.³²

Implications and Potential Emerging Trends

Joint military exercises remain an important and enduring element of the China-Russia relationship. Analysts of both China and Russia should continue monitoring China-Russia exercises for new and emergent trends. This is especially important in light of Russia’s war in Ukraine—the impacts of which continue to ripple around the world. So far, there is no evidence that the war has had any specific effect on joint exercises. The timing and nature of the May 2022 joint aerial patrol suggest that, for now, the two sides are compartmentalizing the war so as not to disrupt exercises.

It is possible, however, that the war could have consequences for China-Russia joint exercises in the medium to long term. The Russian military has performed remarkably poorly in Ukraine—even after revising its initial disastrous approach to focus on more limited aims—and the war has proven costly and deadly for Russia. If Beijing assesses Russia’s performance in Ukraine to be bad enough, that could compel China to rethink the educational and training value of joint exercises with Russia. It may even lead China to question the overall value of its strategic ties with Russia. In the long term, a deeply weakened and overstretched Russian military could compound this by lacking the capacity to carry out large-scale exercises with any frequency. In one scenario, this may lead China and Russia to pivot toward narrower, smaller-scale exercises that are focused less on operational benefits and more on political signaling—like the recent aerial patrols. In another scenario, the two sides could continue with their existing pace and scale of exercises, but with China more consistently leading as the senior military partner.

Finally, it is worth noting that China and Russia may face an increasingly competitive environment with respect to military exercises in the Asia-Pacific region as European countries step up their military and security presence there. In 2021, the United Kingdom sent a carrier strike group to the region for the first time since 1997. The deployment saw Royal Navy vessels participating in multilateral exercises in the Philippine Sea, alongside U.S., Japanese, Canadian, Dutch, and New Zealand naval forces.³³ The war in Ukraine could unexpectedly catalyze Europe's turn to the Asia-Pacific region: when NATO foreign ministers met in April 2022 to address the war in Ukraine, they also voiced calls to counter Russian aggression in the Asia-Pacific by partnering with regional countries on issues including cybersecurity, emerging technologies, and maritime security (among others).³⁴

An increased European presence in the region—on top of the already large U.S. and allied presence—would be an unwelcome development for Beijing and Moscow and could ultimately impact China-Russia joint exercises in the area going forward. If exercises become more politically focused and both countries are facing what they view to be a more hostile and competitive environment, it is possible they could ramp up the frequency of exercises to demonstrate their joint resolve and unity in the face of perceived threats—assuming that Russia has the capacity. If both countries continue to deepen their strategic relationship and partnership, they may also be open to engaging in exercises in areas that they may have previously deemed too sensitive, such as those closer to Taiwan.

Sino-Russian Space Cooperation and What It Means for the United States

By Robert Samuel Wilson

Introduction

In late February 2022, during the first week of Russia's invasion of Ukraine, the Russian space agency Roscosmos made several announcements that weakened space relations with the United States and European countries. The agency canceled a launch of British commercial satellites unless certain conditions were met, including the UK government's financial withdrawal from the company.¹ It also announced it was suspending cooperation with European partners in organizing space launches from French Guiana.² Dmitry Rogozin, the head of the agency, said that the United States could no longer participate in a planned Russian mission to Venus.³

As indicated by statements from Rogozin and the agency, the rapid deterioration of relations with the West since February 2022 has accelerated a trend of increased Sino-Russian collaboration in space. Instead of partnering with the United States, Rogozin ordered his team to coordinate with Beijing for deep space missions.⁴ When discussing sanctions from Western countries that would target supplies of microelectronics necessary for spacecraft, he also emphasized Russia's relationship with China.⁵

For the United States, this intensifying cooperation poses several challenges. Heightened Russian and Chinese space collaboration could enable U.S. strategic competitors to achieve more capable and integrated space systems and could complicate agreements on space security issues. However, the development is not all negative. Like the United States, China has pursued international space partnerships in recent years. Given Russia's reduced standing in the world as a result of its war in

Ukraine, Beijing's growing partnership with Moscow could make it harder for China to recruit other countries to collaborate. This dynamic could eventually push China away from Russia, opening possibilities for more negotiations on space security issues between Washington and Beijing. In short, the space relationship between Russia and China could take different turns, which could present challenges and opportunities for the United States.

Russia and China's Space Collaboration

Russian and Chinese space collaboration falls into two categories: (1) technology and capability development and (2) space diplomacy. While some of the joint space diplomatic efforts date back at least to the early 2000s, much of the technology and capability development collaboration has been more recent.

Technology and Capability Development

Russia and China's cooperation on space technology and capabilities has grown partly out of necessity. U.S. and Russian scholars and experts attribute this increasing cooperation, at least in part, to Russia's annexation of Crimea in 2014.⁶ Prior to that, the United States and Russia had enjoyed an effective and expansive space partnership, highlighted in 1993 when President Bill Clinton invited Russia to join the International Space Station (ISS) program as a full partner.⁷ Although the countries remained partners on the ISS after the Crimea invasion, their broader space relationship has suffered.⁸ Reduced U.S.-Russian space collaboration created an opening for China, which the United States had excluded from the ISS and from other joint civil space activity. Since 2014, space cooperation between Russia and China has, according to Russian space experts, "further expanded and deepened, forming a China-Russia space cooperation relationship with space technology, space science, and space equipment intertwined."⁹ The technical collaboration has made sense: China has ample resources and has been willing to engage extensively with Russia, and Russia has 70 years of experience and expertise to offer Beijing's rapidly developing space program.

An early area for cooperation was on navigation satellites. Both Russia and China have global navigation satellite systems: GLONASS (Russian) and BeiDou (Chinese). In 2014, the two countries established a senior-level committee on "strategic cooperation in satellite navigation."¹⁰ The committee formed working groups that covered compatibility and interoperability, augmentation and station construction, monitoring and assessment, and joint applications. In 2019, the two countries jointly developed a multi-frequency radio chip designed to support both satellite constellations.¹¹ In the same year, Russia passed a law establishing cooperation between Russia and China on using GLONASS and BeiDou for peaceful purposes.¹² In 2021, the Russian space agency announced that Russia would start placing GLONASS ground stations in China, while China would start placing BeiDou ground stations in Russia.¹³ This cooperation reflects increasing partnership on capabilities that are important for both civil and military applications.

Another area where Russia and China have collaborated recently is deep space. In March 2021, the two countries signed a historic agreement to build a base on the moon together.¹⁴ They have also signed agreements to create a joint lunar and deep space data center with hubs in both Russia and China, and they plan to cooperate on each other's missions to survey the lunar south pole.¹⁵ As some Russian thinkers argue, Russia's deepening links with China in this area may be driven by a desire to not get

left behind technologically as other powers pay closer attention to space beyond geosynchronous Earth orbit for scientific and military purposes.¹⁶ This collaboration is also striking because space exploration has historically been an area in which Russia and the United States have collaborated.

This Sino-Russian space partnership could also be extending to strategic military capabilities. Both Russian and Chinese outlets have reported that Russia is helping China develop a space-based missile warning system.¹⁷ Currently, only the United States and Russia have space-based missile warning systems, although other countries have expressed interest in developing their own.¹⁸

These are just some examples of burgeoning Russian and Chinese space cooperation. In August 2017, Russia and China signed a five-year agreement to continue collaborating in space from 2018 to 2022.¹⁹ In a 2019 meeting on space cooperation, they reaffirmed support for mutual endeavors in remote sensing, rocket engines and launch vehicles, and low-orbit satellite communications systems.²⁰ The two countries reportedly are nearing another five-year agreement, to be signed in 2023, to outline their commitment to continue working together in space.²¹

Space Diplomacy

Another way in which Russia and China have cooperated on space issues is through diplomacy. In 2002, the two countries submitted a joint working paper focused on preventing the deployment of weapons in space to the United Nations Conference on Disarmament.²² The working paper served as the basis for a draft treaty that Russia and China introduced in 2008 called the “Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects,” commonly known as PPWT.²³ In 2014, Russia reintroduced a revised version of PPWT.²⁴ Due to objections from the United States and other countries, these proposals have not made progress in the United Nations.

It is hard to imagine that PPWT could ever turn into an international agreement. The aim of the proposal is to prohibit weapons from being deployed in space but not to ban weapons that could target objects in space. The treaty would omit any restriction on ground-based anti-satellite weapons, which both Russia and China have tested in the last two decades and which are often characterized as the most likely kinetic threat to space systems.²⁵ Further, prohibiting weapons in space is difficult to verify because virtually anything in space could be used as a weapon. Space robots can refuel spacecraft to extend a satellite’s life—or tear the solar panels off to kill it. Lasers can provide rapid and secure communications—or destroy sensors and other delicate satellite systems. More generally, given the speeds with which objects travel in space, something as small as five centimeters in diameter could produce an amount of energy comparable to being hit by a bus. Given these limitations, the United States and other countries will likely remain unpersuaded by PPWT.

Although it will likely never become a treaty, PPWT has become a political tool for Russia and China. In 2014, 125 countries voted for PPWT; in contrast, only three countries voted with the United States against it.²⁶ Both Russia and China point to the proposal as evidence that they support peaceful purposes of outer space in contrast with the United States, which they accuse of “weaponizing” space.²⁷ They have used the treaty and their rhetoric to deflect from their own activities. After Russia’s anti-satellite weapon test in November 2021, Russian foreign minister Sergey Lavrov called on the United States to negotiate over PPWT, a document that “Russia and China are proposing to prevent this arms race and

which the U.S. cannot accept.”²⁸ In May 2021, China’s space policies drew criticism because a Chinese rocket body was falling uncontrollably back to Earth, which could have caused damage depending on where it crashed. Asked about the measures China was taking to deal with the falling rocket, a Chinese spokesperson responded: “As a principle, China is committed to the peaceful use of outer space and believes we should conduct international cooperation in this area.”²⁹ Of course, a commitment to peaceful uses of outer space has little to do with inappropriate disposal of a space launch vehicle that then comes hurtling back to Earth. In both these cases, PPWT and a supposed commitment to peaceful purposes of outer space provided Russia and China a rhetorical means to deflect.

Implications for Transatlantic Security

Increasing Sino-Russian space cooperation has concerning implications for transatlantic security. It means these U.S. competitors are becoming more capable and integrated. It also makes it harder for the United States and its allies to negotiate with either country.

A clear complication for the United States of Sino-Russian space cooperation is that China benefits from Russia’s expertise, and Russia benefits from China’s resources. Another complication is that this technical cooperation could lead to more integrated capabilities that could be used in war. If a war extended to space, both countries could interpret an attack on the same asset as an attack on both countries. Perhaps most worryingly, this integration could also progress to the countries collaborating on counter-space. “Defense planners need to look for indications that suggest Russia and China are moving toward cooperation in the counter-space field out of a growing fear of U.S. dominance in space,” writes Jeffrey Edmonds of the Center for Naval Analyses, warning that joint Russian-Chinese counter-space exercises “should not be discounted.”³⁰

The Sino-Russian diplomatic front means that finding compromise may require convincing both countries collectively rather than convincing each one individually. Further, part of why PPWT has generated international support is that both powers have been committed to it, and in turn this international support may make both countries more likely to dismiss alternatives to PPWT—even if those alternatives are in their interest. One such alternative was introduced by the United Kingdom: a 2021 UN resolution to establish an open-ended working group that would “make recommendations on possible norms, rules and principles of responsible behaviors relating to threats by States to space systems.”³¹ The resolution passed in a 163-8 vote, with nine abstentions. Those opposed were Russia, China, North Korea, Iran, Cuba, Nicaragua, Venezuela, and Syria. Given that they are both space powers, Russia and China would benefit from participating in such an effort; it would seem to be in everyone’s interest to consider issues like the types of behaviors that may be perceived as threatening if not accompanied by advance notice and protocols that could be put in place to lessen the likelihood of unintentional conflict.³²

Russia and China’s concerted diplomacy also leads them to defend each other’s worst actions. Russia’s 2021 anti-satellite test is a case in point. The test created thousands of pieces of debris, much of which remains in orbit; the presence of the debris degrades the operating environment for all space actors. Because the United States has the most satellites in orbit, such degradation creates a higher likelihood that one of its assets could be affected. It is also particularly harmful for China, which has the second most satellites in orbit. In fact, in January 2022, a Chinese satellite was reported to have experienced a near miss with a piece of debris created by Russia’s test.³³ But even in this instance, China refrained from publicly blaming its partner.

Evolving Dynamic

The space dynamic between Russia, China, and the United States—which has changed considerably in recent years—could change further because of Russia’s recent invasion of Ukraine. According to some Russian space experts, Russia’s interest in close collaboration with China on space issues is likely to remain strong.³⁴ The partnership has brought Russia more resources for space ventures and more support for arms control proposals targeted at the United States. Any rupture in this partnership could undermine Russia’s goal of remaining a leading space nation and weaken its space diplomatic agenda.³⁵ What remains less clear is how, if at all, Russia’s recent invasion of Ukraine will affect how China views this partnership.

Arguably, the desire to continue along a course of cooperation with China is driven in part by necessity. Sanctions levied against Russian companies are bound to limit Russia’s capacity to provide commercial space services—which some Russian thinkers considered as a way to sustain Russia’s space program in the long term—and the already low level of state funding for space ventures could attenuate further as Russia’s economy contracts.³⁶ In this context, funding from China—and to a lesser extent, other countries with nascent space programs—is crucial for Russia to meet its space ambitions.

What remains less clear is how, if at all, Russia’s recent invasion of Ukraine will affect how China views this partnership.

For China, there is a considerable downside to further integration with Russia’s space efforts. China is actively pursuing space partnerships and wants to be recognized as a world leader in space.³⁷ It has space research cooperative agreements with Argentina, Brazil, Pakistan, France, and Malaysia, among other countries.³⁸ Such partnerships offer important advantages, including being able to spread the cost of operating in space or the cost of developing a capability. Also, in a crisis or war, a country may be less likely to attack a spacecraft that could be owned by or supporting multiple countries than a spacecraft that is owned by and supporting only one country.³⁹ Because of Russia’s invasion of Ukraine, countries and companies are severing ties with Russia. As a result, the more China integrates with Russia in space—the more the two countries are perceived as inseparable—the harder it may be for China to recruit new partners.

In the wake of the Ukraine crisis, China could follow the precedent set in 2014. When Russia annexed Crimea, China seized the opportunity, establishing more technical cooperation with Russia on space and filling the void left by the United States and others. Because integration with Russia could weaken China’s ability to become a global leader in space, however, China could distance itself from Russia instead. China may not need as much technical assistance as it did in 2014, and Russia’s standing in the world is much lower now than it was then. Along these lines, Todd Harrison, then the director for the Aerospace Security Project at the Center for Strategic and International Studies, said: “China seems to be very tactical and pragmatic with the agreements that they make, and I don’t know that Russia has that much to offer anymore, especially after this [invasion of Ukraine]. . . . And there’s a lot of baggage that’s going to come with partnering with Russia from now on.”⁴⁰

If China did reduce its space cooperation with Russia, that could offer an opportunity for more dialogue with the United States. This is not going to lessen all tensions between the two countries, but it could create some meaningful discussions on space. *Newsweek* reported in December 2021 that the Biden administration is considering approaching China on bilateral space arms control.⁴¹ Less ambitious measures could be valuable as well. With the amount of activity in space increasing dramatically, the need for mundane principles and rules—along the lines of maritime right-of-way rules—is becoming more important, particularly between the two countries with the most assets in orbit.⁴²

Conclusion

The United States should pay close attention to the space relationship between Russia and China. A tighter connection will pose considerable challenges, such as potential adversaries developing more sophisticated and integrated systems and maintaining a diplomatic front that impedes efforts to establish norms, rules, and principles on space behavior. A more detached relationship could create auspicious circumstances for bilateral negotiation between China and the United States. The United States would benefit from considering the options and consequences that come with these different scenarios.

China-Russia Cooperation in Space

The Reality behind the Speeches

By Marc Julienne

China-Russia cooperation in space has been increasing for the past two decades. This cooperation accelerated after the Crimea crisis in 2014 and culminated with the announcement in 2021 of the joint construction of the International Lunar Research Station (ILRS). Yet, behind the hype around the countries' "rock-solid friendship," the reality of this bilateral cooperation is more complex.¹ Space cooperation is very strong when it comes to diplomacy, but it has proven to be limited in technical terms. Overall, the ambitious space partnership touted by China and Russia may well be exaggerated, considering three factors: Russian space budgets have been declining for years; the war in Ukraine will most likely undermine Russia's budget and technical means for space even further; and China and Russia have persisting mistrust that tends to slow down any real, integrated technical cooperation.

Mainly based on Chinese sources, this paper intends to assess the bilateral partnership in space from a Chinese perspective, going through the historical background, the current cooperation programs, and the two countries' common front in space diplomacy.

The History of China-Russia Cooperation in Space

As in many other domains of the China-Russia bilateral relationship, there are two distinctive phases of cooperation: before and after Russia's annexation of Crimea in 2014.

After a decade of intense scientific and technical cooperation in the 1950s, all cooperation abruptly ceased as a result of the Sino-Soviet split in 1960. It was not until the fall of the Soviet Union in 1991

that both countries embraced a fresh start. In 1992, they signed the intergovernmental “Agreement about the Cooperation on Research and Peaceful use of Outer Space,” which was followed by a similar protocol signed between the China National Space Agency (CNSA) and the Russian Space Agency (now known as the Federal Space Agency, or Roscosmos) in 1994. A cooperation agreement on piloted spaceflight was signed in 1996, just four years after China launched its piloted space program. This represented a much more concrete step compared to the two previous agreements.² It allowed China to benefit from Russia’s assistance for the development of its own spacecraft—the Shenzhou—based on the Soyuz design, as well as space suits and training for Chinese taikonauts. This cooperation enabled China to conduct four unmanned flight tests of the Shenzhou spacecraft between 1999 and 2003 and its first manned mission, Shenzhou-5, in October 2003.

The trend of closer cooperation in space continued throughout the 2000s and early 2010s. In 2000, the two countries brought their space dialogue to a more regular basis with the establishment of the China-Russia Space Cooperation Sub-Committee, held during the annual meetings of their prime ministers. In 2007, they signed an agreement on the joint exploration of Mars, with China being a minor contributor. The Russian Fobos-Grunt mission consisted of a sample return from the Martian moon Phobos; it was supposed to carry a Chinese probe (Yinghuo-1) into Mars’s orbit, but it failed shortly after launch in November 2011.

While bilateral cooperation developed effectively from the 1990s to the 2010s, it remained a mostly commercially oriented relationship, wherein Russia sold technology and know-how to China within certain limits. As He Qisong and Ye Nishan from the East China University of Political Science and Law in Shanghai noted in an August 2021 paper, China-Russia space cooperation “lacked depth” before 2014 and did not match the level of the political engagement officially declared by the two sides; it existed merely at a “superficial level” (浅层次).³

The main reason for limited cooperation at the time was Russia’s lack of will to engage in a close partnership with China. Moscow simply did not want China to progress too quickly and eventually catch up and outperform Russia. Wang Ye and Zhou Yuan, from the China Academy of Launch Vehicle Technology (CALT), write that “the Russian government became increasingly cautious about cooperating with China’s space program, mainly for fear of creating a formidable space competitor, and also for the fear of angering the United States, the most important space partner at the time.”⁴ A December 2006 public statement by the then-head of Roscosmos, Anatoly Perminov, confirmed this assessment: “Russia will cooperate with China on space projects but will not transfer sensitive technologies that could enable Beijing to become a rival in a future space race.”⁵

Russia’s annexation of Crimea in 2014 marked a major turn in Russia’s overall relationship with China. Moscow found itself isolated diplomatically and faced a wave of sanctions from Western countries as well as from Japan, which were directed in part against its space industry. Moscow then turned to Beijing for political and economic support—albeit at the cost of several concessions, like the transfer of technology in sensitive sectors, including weaponry and space.

China had a significant interest in collaborating more closely with Russia, as the Wolf Amendment passed by the U.S. Congress in 2011 excluded China from any project involving NASA (including the International Space Station), and the U.S. International Traffic in Arms Regulations (ITAR) prohibited any export or reexport of U.S. space technology or components to China. As the Russian space industry found itself targeted by sanctions after 2014 and Russia-U.S. space cooperation was drastically undermined, Moscow had an incentive to seek deeper cooperation with China.

Contemporary Space Cooperation: Great Announcements but Limited Technical Cooperation

After the Crimea crisis, the two countries pushed forward their cooperation in space in the fields of global navigation satellite systems, lunar exploration, and military space systems.

BEIDOU-GLONASS SATELLITE NAVIGATION SYSTEMS COORDINATION

In January 2014, Moscow and Beijing established the Russia-China Project Committee on Important Strategic Cooperation in Satellite Navigation, which convenes annually to study the integration potential of BeiDou and GLONASS constellations. The committee is divided into four working groups: compatibility and interoperability, enhanced system and station construction, monitoring and evaluation, and joint application. This led to the signature by Prime Ministers Li Keqiang and Dimitry Medvedev in November 2018 of the Cooperation Agreement on the Peaceful Use of BeiDou and GLONASS Global Navigation Satellite Systems, which aimed to guide joint work on the compatibility (ability to use one system or another) and interoperability (ability to use both systems at the same time, providing better accuracy) of the two systems.⁶

In late 2021, the two countries adopted the “2021–2025 China-Russia Roadmap for Cooperation in Satellite Navigation” to further advance their joint work in this field. According to the road map, each country is expected to deploy BeiDou and GLONASS ground stations in the other country. Roscosmos announced that Russian ground stations would be located in Shanghai, Urumqi (northwestern Xinjiang region), and Changchun (northeastern Jilin Province), while Chinese ground stations would be placed at Obninsk (near Moscow), Irkutsk (Baikal Lake area), and Petropavlovsk-Kamtchatski (Kamchatka Peninsula). A further step toward the integration of Russian and Chinese satellite constellations took place with the signature of the Cooperation Agreement on Time Interoperability of BeiDou and GLONASS Global Navigation Satellite Systems, which occurred on the sidelines of the bilateral summit between Xi Jinping and Vladimir Putin in Beijing on February 4, 2022.⁷

Despite guiding a range of joint Sino-Russian activities in space, few details are available on the 2021–2025 roadmap. It remains unclear how the two countries will overcome the important technical obstacles to achieve full interoperability between the two constellations. Nevertheless, if successfully achieved, the interoperability between BeiDou and GLONASS would allow better performance and a wider range (GLONASS covering higher northern regions and BeiDou lower southern regions), which could have an effect on each country’s military capabilities, as it would improve missile guidance and positioning for troops, military vehicles, and aircraft.

MOON EXPLORATION: THE ILRS PROJECT

The most emblematic aspect of space cooperation between China and Russia is exploration of the moon, under the International Lunar Research Station (ILRS) project. The two countries have discussed the possibility of cooperation in this area for more than 15 years, but it materialized only in March 2021 with the signature of the Memorandum of Understanding on Cooperation in the Construction of the ILRS.⁸ The project is highly ambitious, consisting of lunar-orbit and lunar-based facilities for a manned mission, with the first modules to be launched in the early 2030s.

While the project has attracted significant attention, an analysis of available official documentation on the ILRS reveals certain important inconsistencies. First, the plan provided by the CNSA and

Roscosmos to the United Nations Office for Outer Space Affairs (UNOOSA) in August 2021 schedules five lunar missions (two Chinese, three Russian) by 2025. This sounds rather ambitious, considering the state of Russian space industry and budget—and the fact that Russia’s last moon mission, Luna 24, took place in 1976. Nonetheless, during a visit to the Vostochny Cosmodrome in April 2022, Putin reaffirmed that he would “restore the moon program” and that “by the third quarter [of this year] the Luna-25 mission must be complete” (although it was initially planned for 2016).⁹ This may prove to be a challenge for Russia, considering the global geopolitical context and the sanctions against it.

Second, according to the plan, the first ILRS module (launched by a Chinese rocket) is expected to land on the moon in the early 2030s. All following modules (ILRS-2 through ILRS-5) will be launched alternatively by Russian and Chinese launchers by 2035. Among these five ILRS missions, the emphasis is put on lunar surface facilities, but little is said about the circumlunar space station, which would be instrumental to developing facilities on the surface of the moon and would need to be constructed in advance of them.

Both sides claim that they will cooperate on all aspects of the program, including the coordination of scientific and technical research, development, design, modeling, testing, validation, assembly of the ILRS component parts, and the launching and operation of the facilities. However, it remains unclear what specific tasks and technology each side is going to provide or how much funding each side is ready to dedicate. This raises questions about the sustainability of the program if one of the stakeholders is unable to fulfill its commitments.

Despite these unresolved issues, in late December 2021, Roscosmos announced that China and Russia would sign in 2022 a new space cooperation program for 2023–2027, which should include further details on the plan to develop the ILRS by 2035.¹⁰ However, the war in Ukraine will most likely impact both the ILRS project schedule and the overall nature of bilateral cooperation in space, at least in the short to medium term.

One might wonder why China and Russia did not start by cooperating on an Earth orbit joint space laboratory before aiming at the moon. Both countries have experience and ongoing or future projects in this field. Moreover, it could have been a more easily achievable project and could have had a nearer completion date. There are several potential explanations. First, it seems that both China and Russia want to have their own independent space laboratory. Second, China wants to demonstrate that it is capable of building a space station by itself. Third, Russia may also want to maintain a degree of autonomy in space, and this is one of the few areas where it can still do so.¹¹ Nevertheless, both sides have expressed willingness to cooperate in this field. In June 2021, Dmitry Rogozin revealed that talks with China are ongoing to send Russian cosmonauts onboard the Chinese Tiangong station.¹²

CHINA-RUSSIA MILITARY COOPERATION IN SPACE

Moscow and Beijing claim to be improving their military space cooperation, though it is difficult to assess its depth and nature. One component is the information exchange mechanism provided by the 2009 Agreement on Mutual Notification of Ballistic Missile and Space Launch Vehicle Launches. By preventing miscalculation, this agreement favors mutual trust and security between the two countries. It was extended for 10 years in December 2020.¹³

China and Russia claim to cooperate in two very strategic and sensitive domains: anti-ballistic missiles and early warning systems. During the annual conference of the Valdai Discussion Club in October

2019, Putin revealed that Russia was helping China to build an early warning ballistic system, which would “fundamentally enhance the defense capability of China.”¹⁴ It is also well known that both militaries conducted joint exercises on computer-simulated ballistic missile interception in 2016, 2017, and 2019. While this is consistent with the fact that Russia has provided China with ballistic missile defense software,¹⁵ it remains uncertain whether Moscow would go as far as to help China develop an early warning satellite constellation or ground-based radars.

Altogether, from where the space dialogue started in the 1990s until today, the discourse and announcements by Russian and Chinese leaders on their flourishing cooperation does not yet match the reality of their technical collaboration, nor does it reflect their ability to commit to their joint programs.

Space Diplomacy: China-Russia Alignment against the United States

In contrast to technical and scientific cooperation, space diplomacy is a field where close cooperation between China and Russia has been taking place since the end of the Cold War. Chinese experts on space emphasize this aspect of their cooperation with Russia more than they do the technical side. He and Ye’s August 2021 article, “An analysis of space cooperation between China and Russia,” devotes only 4 of its 24 pages to technical cooperation, while the rest tackles the issues of space diplomacy, space law, and the geopolitics of space. In their view, China-Russia cooperation in space is the result of improving political bilateral relations and, most importantly, changing geopolitical challenges in space, with “the U.S. strategy of space hegemony” at the top of them. The main goal of China and Russia would be to “maintain the multipolarity of space and the overall stability of the China-U.S.-Russia triangular space relationship.”¹⁶

The first threat China and Russia want to address is “the weaponization of space and an arms race in outer space.”¹⁷ The two countries blame the United States for a series of actions that they consider undermining security and stability, both in outer space and on Earth. The U.S. withdrawal from the Antiballistic Missile (ABM) Treaty in 2001 and the Intermediate-Range Nuclear Forces (INF) Treaty in 2019 are cited as examples of such actions. They also condemn Washington for the development of ABM systems and their proliferation, space-based early warning sensors, and space-based missile interceptors, which they characterize as deeply destabilizing.

Against this backdrop, Russia and China have been very active within multilateral forums such as the UN General Assembly (UNGA), the Conference on Disarmament, and the UN Committee on the Peaceful Uses of Outer Space (COPUOS) to promote resolutions and treaties against the weaponization of outer space. The main initiative in this field is the draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects (PPWT), which was first submitted to the Conference on Disarmament in 2008, where it was blocked by the U.S. delegation.

At the UNGA, Russia and China submit annual resolutions on international cooperation in the peaceful uses of outer space, the prevention of an arms race in outer space, transparency, and confidence-building measures in outer space, no first placement (NFP) of weapons in outer space, and further practical measures for the prevention of a space arms race. These resolutions are generally adopted with a large majority but are nonbinding.

The second main point of opposition that Russia and China have against the U.S. role in space is the exploitation of extraterrestrial resources, especially on the moon. They fear that the United States is seeking de facto sovereignty over the moon and other celestial bodies. He and Ye analyze that the U.S. government has adopted a four-step approach to this end. The first step was to grant ownership rights to “nongovernmental” (i.e., commercial) entities to exploit space resources through the Commercial Space Launch Competitiveness Act of 2015. The second was to change the legal status of the moon and other celestial bodies through the American Space Commerce Free Enterprise Act of 2018, which provides that “outer space shall not be considered a global commons.”¹⁸ The third step, according to He and Ye, was President Trump’s executive order on April 6, 2020, that rejected the Moon Agreement of 1979 (which the United States did not sign) as a customary law and confirmed that the United States does not view space as a global commons.¹⁹ The fourth step was the introduction of the bilateral Artemis Accords in 2020, which set a new U.S.-led framework for moon exploration. For He and Ye, these accords “constitute a ‘space version of NATO’ in an attempt to seize lunar sovereignty.”²⁰

For Chinese experts, however, the exploitation of extraterrestrial resources does not seem to be as important as the weaponization of space. In fact, some scholars, including international law professor Ma Chengyuan from China University of Political Science and Law, are rather understanding of the U.S. position, pointing to loopholes in international law on the question of exploitation of extraterrestrial resources. They also acknowledge that formulating a new treaty in the next few years is unrealistic, considering the expected opposition from countries that lack the ability to exploit such resources.²¹ This rather soft approach on resource exploitation was also reflected by the lack of any mention of this issue in the China-Russia joint statement of February 4, 2022—whereas the document devoted two full paragraphs to the prevention of weaponizing outer space.²² This can be explained by the fact that both China and the United States are well aware that counting on international law is a dead end to legally exploit space resources. In this sense, the U.S. unilateral approach to lunar exploitation is an example that is likely to be replicated by China and Russia.

Three Key Takeaways

PERSISTING MISTRUST BETWEEN CHINA AND RUSSIA

Behind what China presents as a “rock-solid friendship,” it is worth keeping in mind that Sino-Russian relations are not without divergences. The relationship is often described in official discourse as “at its best in history.” However, as Yang Cheng, professor at the Shanghai International Studies University and a specialist on China-Russia relations, notes: “‘the best’ does not mean that there are no flaws in the cooperation.”²³ Considering the rocky history of bilateral ties in the Soviet era, the relationship has indeed improved significantly, but it is still far from an alliance. It is closer to tactical solidarity than mutual trust, and in the field of space, it is closer to a diplomatic alignment than full scientific and technical integration.

There is an increasing imbalance between China and Russia that gives Beijing an advantage over Moscow. This feeling of superiority—and sometimes disdain—shows through Chinese experts’ analysis. He and Ye, for instance, underline that “the lack of funding for the development of Russia’s space industry, and the aging and loss of scientific and technical personnel, including in the space field, have further led to the slow development of Russia’s space technology and industry, and even to difficulties in maintaining satellite ground facilities. The progress of space projects, especially large-scale ones, is lagging behind expectations, or even seriously behind.”²⁴

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Consequently, He and Ye note, the number of Russian satellites in orbit has not increased by much in the past few years (about 8 more satellites a year), while the number of U.S. and Chinese satellites has risen drastically (about 266 and 47 more satellites a year, respectively). Li Ziguo and Li Yan, both researchers at the China Institute of International Studies (CIIS), also note that “according to the Global Innovation Index reports released by the World Intellectual Property Organization (WIPO) in recent years, China’s world ranking has continued to rise, from 29th in 2015 to 14th in 2020,” while Russia had been hovering at the 45th place between 2015 and 2019 before downgrading to 47th out of 131 countries in 2020.²⁵ However, they lucidly recognize Russian excellence in basic science (six Fields Medals and five Nobel Prizes in Physics since 1991), and consider that, with limited access to Western technologies, “deepening the scientific and technological cooperation between the two countries is an inevitable choice.”²⁶

In addition to this feeling of superiority, China also has doubts about its Russian partner. One major doubt is about Moscow’s will and means to fulfill its commitments with China. Chinese experts note that since Russia is unable to implement its own national space program, cooperative projects with China are all the more uncertain. Beijing is also aware that its space partnership with Russia depends on the state of the cooperation between Moscow and Washington; any improvement in Russia’s cooperation with Washington would mean a distancing from Beijing. Finally, Russia also cooperates with India in space. Indeed, as an emerging space power, India is very interested in Russia’s know-how, and it is an attractive partner for Russia in turn. As illustrated by the December 2021 joint statement by Putin and Narendra Modi, the two sides have committed to cooperate in human spaceflight and satellite navigation, which may represent a source of concern for China.²⁷

THE IMPACT OF THE WAR IN UKRAINE

As the 2014 Crimea crisis accelerated overall cooperation between China and Russia—including in space—one may wonder about the potential consequences of the war in Ukraine for the future of the bilateral partnership. Will it open a new phase of deepening cooperation, or will it slow it down?

Either way, Russia will become even more dependent on China if it wants to stay in the space race, and China will have another useful lever to impose on the orientations and the scope of the partnership. Despite the Chinese narrative of “win-win cooperation” in space, and despite the fact that Chinese experts present bilateral cooperation as “highly complementary,”²⁸ one should expect that Russian cooperation with China will mostly fuel the latter’s space program and ambitions, rather than the other way around.

On the other hand, the war in Ukraine may also put a stop to China-Russia cooperation in space, and to the ILRS project more specifically. Russia’s space industry was already in a dire situation before the war, and now it is in a critical position after new waves of sanctions and being cut off from cooperation with Western space powers.

THE NEED FOR MULTILATERALISM AND STRONGER WESTERN ALTERNATIVES IN SPACE

The Sino-Russian rapprochement in space geopolitics has taken advantage of the vacuum left by the United States and other space powers in international forums. While the joint PPWT proposal is far from acceptable due to its many loopholes (e.g., the lack of definition of a weapon in outer space, the exclusion of ground-based anti-space weapons, and the absence of a control mechanism), no alternative was offered by Western countries to develop an international legislative framework to address the weaponization of space. The sole exception is the European Union International Code of Conduct for Outer Space Activities, which was submitted in 2010 but remains in limbo today. The lack of counterproposal to the PPWT fuels Moscow and Beijing's narrative of the United States' unilateral weaponization of outer space—a view that is widely supported at the UNGA.

In fact, the United States is indeed taking a unilateral path—by adopting federal laws on celestial bodies. This approach undermines international law and multilateralism. Denying space as a global commons, in a time when the importance of protecting the environment—including in outer space—is a matter of survival, is a dangerously anachronistic approach. This perspective encourages the perception of outer space as a “new frontier” to conquer and colonize, which legitimizes the unregulated space race. It harms multilateralism and threatens the preservation of peace and stability in outer space and on Earth. To meet the challenges brought by the Sino-Russian rapprochement in space affairs, an approach that emphasizes more transatlantic coordination and multilateralism is far more likely to succeed than the current unilateral framework embraced by the United States.

The Global Hybrid War and the Role of China in Russian Strategic Thinking

By Katri Pynnöniemi

The concept of “global hybrid war” is a vision of future global war led by the United States and its allies primarily against Russia, but in a later phase also targeting China. As defined by Alexandr Bartosh, a corresponding member of the Academy of Military Science and the most visible advocate of the hybrid war concept in Russia, the global hybrid war is a protracted, multilevel military conflict between civilizations. The term “hybrid” refers to the simultaneous and coordinated use of military and non-military (e.g., economic, financial, technological, or informational) means of warfare. In general, this type of war is about control of natural resources, spheres of political influence, and competition over technological leadership in the greater Eurasian region, the Middle East, Africa, and Latin America. In a narrower sense, argues Bartosh, the global hybrid war aims to achieve the “liquidation of the Russian statehood, its disintegration and external control of the country.”¹ In his view, the next targets after Russia will be China and India, the two geopolitical contenders that would remain on the sidelines of the conflict between Russia and the West. Bartosh argues that “*Russia and its allies* should carefully study global hybrid warfare and develop corresponding offensive and defensive strategies in the interests of ensuring national and international security.”² But what does this suggestion for closer cooperation in the hybrid sphere mean in practical terms?

The set of questions explored in this article considers China’s role in this arrangement. For example, if the global hybrid war is ultimately a conflict between civilizations, as Bartosh suggests, does this imply a potential conflict between Russia and China as well? Or is this difficult question omitted, and cooperation is legitimized on the basis of traditional great power interests? Recently, Russian scholars have put an emphasis on “mental war” fought against “real” sovereign states, but what role do alliances

play in counteracting this type of aggression? Is Russia alone in this struggle, or could China play a role in helping Russia to defend its culture, values, and traditions? An analysis of the material reveals that cooperation with China is framed positively, yet vaguely, leaving many questions still open. Before turning to a more detailed analysis of Sino-Russian cooperation in this area, it is necessary to explore the concept of global hybrid warfare and its place in Russia’s strategic thinking.

The Hybrid War as a Code Word for the Kremlin’s Worldview

With the ongoing transformation of Russia’s political environment toward a more authoritarian—even totalitarian—system, it is possible to argue that the concept of global hybrid war has evolved into a “floating signifier” similar to the concept of Marxism-Leninism in the Soviet period.³ In his work on the history of Soviet cybernetics, Slava Gerovitch shows how Soviet science was flooded with these code words—a kind of newspeak that “blended description with evaluation,” where the meaning of each code word could “shift and change according to context and usage.”⁴ However, code words did not acquire their meaning at random; Soviet ideological language had a specific structure whereby certain phenomena or actions were assigned a strong positive or negative value. Cultural theorist Mikhail Epstein conceptualized such words as *ideologemes* (i.e., a fundamental unit of ideology) that “were not simply words, but concealed judgements that take the form of words.”⁵ The Soviet ideological language consisted of three different types of ideologemes (contrastive, conversive, and correlative pairs of words) that, taken together, formed a model of “Soviet Marxist ideolanguage.” The essence of the ideological language, as Epstein shows, was not to exchange information, but to control thinking and action in the Soviet politics. The Soviet regime not only defined the correct use of ideolanguage but also played it against all opponents, and thus acquired full control of the political space.⁶

The hypothesis developed here is that the concept of hybrid war—and other code words related to it—is used like Soviet-era ideologemes to shape perceptions about external and internal threats toward Russia.⁷ In this context, it is possible to identify pairs of words that carry positive meaning (denoting what Russia does) and negative meaning (actions by the West).

Negative	Positive
Hybrid war	Active defense
Unipolar	Multipolar
Western cosmopolitanism	Russian (Chinese) civilization
Colony (formal sovereignty ⁸)	Sovereign power (real sovereignty)

In contrast to the Soviet ideological language, the meaning of these contemporary word pairs is based not on a specific school of thought but on a combination of political realism (great powers have a right to rule over others), strategic culture (Russia’s imperial legacy and self-perception of exceptionalism), and what one influential analyst deemed the “Barbarossa mentality” (Russia’s traditional fear of encirclement and expectation of decisive surprise attack).⁹

Against this background, the debate on hybrid warfare offers a context whereby Russian scholars and authorities can elaborate ideas and shape expectations on their country’s future as a “real” sovereign power. It considers Russia’s internal political and economic weaknesses and the assumption that

foreign powers are building their capabilities to further weaken Russia. This seems counterintuitive, taking into account Russia's attempted and successful jailing, repressions, and assassinations of dissenters and its hostile operations against foreign countries. However, in the Russian view, these operations (if they are acknowledged at all) are part of the country's "active defense" against attempts by foreign powers to subjugate Russia.¹⁰

Against this background, the debate on hybrid warfare offers a context whereby Russian scholars and authorities can elaborate ideas and shape expectations on their country's future as a "real" sovereign power.

What Is the Role of China in Global Hybrid Warfare?

As already indicated, the Russian debate on hybrid war operationalizes the sovereignty-versus-subordination dichotomy and places it in the context of global competition between the United States, China, and Russia. In an article published in 2017, Bartosh underlines how the scale of hybrid warfare encompasses not just particular countries but the entire system of international security:

The growing scale of hybrid warfare waged against Russia makes this type of interstate geopolitical confrontation one of the most acute threats to national and international security. Moreover, the use of a complex of hybrid threats as an instrument of external pressure to create instability within the state is no longer just a threat to national security but a powerful destabilizing factor for the entire system of international security.¹¹

In articles written after Russia's invasion of Ukraine, Bartosh argues that "hybrid war is evolving into a 'multi-dimensional inter-civilizational military conflict,'" which he calls the "global hybrid war."¹² Here, Bartosh draws from Samuel Huntington's "clash of civilizations" argumentation when he asserts that

modern conflicts are moving from the classical linear paradigm to a new type of non-linear wars. The highest form of modern war is "the war of civilizations, that is, the war of the meanings of their existence." The winner in the war of meanings does not win space or even the right to dispose of the resources of the defeated state, but wins the right to determine its future.¹³

Here Bartosh echoes Russian official parlance that distinguishes between states with "real" sovereignty and states that are only "formally" sovereign—meaning that, in reality, they are proxies of a hegemonic power. Currently, the Kremlin uses this dichotomy primarily to undermine Ukraine's sovereignty (representing the country as a U.S. proxy). However, it also reveals an important aspect of the Kremlin worldview, according to which only the strong ("real") states survive. Given Russia's inherent political instability (e.g., the problem of succession), the Kremlin cannot attain the level of security it expects from "real sovereign" countries. This feeling of weakness might explain its interest in "mental warfare" and "mental security" as a new trend in contemporary warfare.¹⁴

According to Bartosh, the two main instruments of the global hybrid war are proxy wars and color revolutions. The term *proxy war* is mainly used to frame Russia's war in Ukraine (like any local conflict in Russia's vicinity) as a conflict between the United States and Russia. Meanwhile, *color revolution* refers to political instability (e.g., in Belarus, Armenia, Kazakhstan, and Venezuela) created by external actors that ultimately aims to weaken Russia's position within its sphere of influence.¹⁵ With this framing, Russia is represented as the victim of hostilities, and the countermeasures it deploys are justified.¹⁶

According to Russian thinkers, China appears in this arrangement as the next potential "target" of the West due to its rising status as a major power. It is also seen as Russia's strategic partner. Russia's relations with China are explained with reference to similarities in their "strategic culture," such as "the general interest of the two powers in defense projects and the prevention of a major military conflict."¹⁷ This idea is far from claiming any civilizational affinity between the two countries. Instead, Sino-Russian cooperation is framed in terms of national interest and great power competition. Bartosh defines relations between the United States, Russia, and China as an increasingly unstable triangle, formed by three pairs of relations: the U.S.-China and subsequent U.S.-Russia rivalries and the Sino-Russian cooperation framework.¹⁸ Although the West is identified as the main source of instability and chaos due to the United States' desire to maintain its hegemonic position, Bartosh does not consider Sino-Russian cooperation inevitable. In October 2019, he writes that

*it is unlikely that, in today's uncertain and chaotic international environment and in the face of its deteriorating relations with the United States, China would be interested in weakening Russia. Rather, on the contrary, an important factor in ensuring the national security of both states should be their mutual interest in each state's stable and sustainable development. The stakes in the geopolitical confrontation between the three powers are extremely high, and we should not rule out the possibility that the United States may initiate sophisticated maneuvers to split the partnership between Moscow and Beijing. The objective of Russian politicians, diplomats, and the military should be to find a worthy response.*¹⁹

As noted above, Russia's cooperation with China is framed as part of "a long-term strategy for a joint struggle" against the West.²⁰ The affirmation of Sino-Russian partnership by presidents Vladimir Putin and Xi Jinping in February 2022 echoes this sentiment and makes the case for increased cooperation in countering interference by outside forces.²¹ In 2019—preceding the joint statement—Bartosh identified counteraction against hybrid aggression "as one of the steps to deepen the relations between China and Russia."²² Another Russian scholar, Alexander Isaev, went further in 2018, when he argued that "there has been a serious breakthrough in Russian-Chinese relations."²³ According to Isaev, this applies especially to thematic dialogues between different government agencies that ultimately "may contribute to the creation in the future of a special platform that would prevent any threat of risks in cyberspace."²⁴ The February 2022 joint statement includes many references to increased cooperation within the United Nations and bilaterally in the cyber sphere, which could be interpreted as confirmation of Isaev's earlier argument.

Interestingly, in 2017, Bartosh advocated for coordinated counteraction against hybrid threats in the context of the Collective Security Treaty Organization (CSTO), the Commonwealth of Independent States (CIS), and the Shanghai Cooperation Organization (SCO). The broad scope of collaboration could include "strengthened cooperation, and coordination in terms of situational awareness, strategic communications, cybersecurity, crisis prevention, and response to counter hybrid threats," he writes.²⁵

Bartosh underlines the importance of the cooperation by arguing: “We should submit this as a priority project on adapting the defense capabilities of Russia, the CSTO, the CIS, and the SCO and ensuring response to any hybrid threats against any of the countries or coalitions.”²⁶ However, he does not develop these ideas further; instead, he calls for the more efficient use of Russia’s internal administrative and intellectual resources. His main concerns seem to be linked to insufficient doctrinal development (e.g., creating a model of hybrid warfare²⁷) and problems with inter-agency cooperation.²⁸

The Limits of Sino-Russian Cooperation

“Global hybrid war” can be thought of as a code word that has multiple meanings depending on the context. Although it does not carry the weight that “Marxism-Leninism” did in Soviet ideology, certain resemblances to Soviet ideological language help explain how this concept is being used in the current context. The notion of global hybrid war reveals core assumptions regarding global politics and the perception of threats toward Russia’s national interests and security. In other words, it offers a general explanation for recurring tensions and conflicts between Russia and the West, along with the perception of enmity—or even hostility—of Western actors toward Russia.

The role of China in this arrangement is clear, although few details on possible Sino-Russian cooperation were outlined by the authors of the materials reviewed for this chapter. China is represented as Russia’s strategic partner and the West’s potential “next target.” An interpretation of China as a potential *next* target places Russia at the center of the ongoing power struggle, thereby upgrading the country’s importance on the global stage. Although Russian authors frame the “global hybrid war” as a conflict between civilizations, they do not elaborate on cultural-strategic similarities between Russia and China, but rather frame the conflict in traditional security and political terms. For example, the concept of strategic culture is defined very broadly, as an attribute of Russia’s (and China’s) alleged defensive posture and the subsequent prioritization of preventing military conflicts (so-called active defense). Counteraction against hybrid threats is listed as one of the potential areas of cooperation between China and Russia. In the material studied for this chapter, the authors identify specific agencies (Ministries of Defense and Military Academies of both countries) and areas (e.g., cyber security or strategic communications) where that cooperation could take place, but they do not elaborate on possible obstacles. The recurring emphasis on improving Russia’s own capabilities in the hybrid sphere can be interpreted as a sign that Russian thinkers have low expectations for what Sino-Russian cooperation can achieve.

An interesting detail that might also outline the limits of Sino-Russian cooperation is the emphasis among Russian military scholars on “mental warfare.” The concept of mental warfare carries with it an idea of *total war* aimed at the complete paralysis of the target country and the destruction of its political and moral will to resist conquest by a foreign power. Consequently, with the subjugation of national culture, values, and traditions, a country’s sovereignty is liquidated, and it becomes a colony or otherwise ceases to exist. In the Russian literature on mental warfare analyzed for this article, it is assumed that each country has its own “core idea”: a set of moral-ethical values and traditions, the destruction of which would lead to the loss of real sovereignty.²⁹ Advocates of the mental warfare concept call for both preventative actions against presumed Western hostilities (“active defense”) and the securitization of Russia’s domestic sphere—its development in terms of Russian cultural-political traditions. Although this type of development does not exclude cooperation with foreign partners in the technological sphere (e.g., the adaptation of Chinese cyber security models into the Russian

context), the center of gravity in mental warfare is Russia's cultural-political cohesion and its ability to secure its own "real" sovereignty. Thus, it is plausible to suggest that the traditional realist view of state sovereignty also limits Russia's potential for alliance formation in the future.

How Does the Chinese Strategic Community Envision Cooperation with Russia on Hybrid and Gray Zone Tactics?

By Alessio Patalano

Introduction

The publication of the joint Sino-Russian statement on February 4, 2022, raised the level of the two countries' commitment to developing bilateral ties. The statement built upon an existing trend of increased cooperation in recent years, which had been further formalized in 2019 during the meeting between Presidents Xi Jinping and Vladimir Putin.¹ The joint statement specifically indicated that Sino-Russian cooperation had now no forbidden areas. Its wording suggested nonetheless that Xi was setting a framework that would first and foremost serve his long-term ambitions for China's process of rejuvenation.² This implies that the scope of cooperation going forward—including in areas such as hybrid and gray zone tactics—is likely to be informed by Chinese ambitions and objectives over Russian ones.

As such, cooperation between China and Russia is likely to remain strategic and focused on advancing the two countries' quest for international relevance, if not primacy as great powers. In particular, while assessments about the underlying strength of the relationship vary, developments in bilateral exercises conducted in 2021—demonstrating greater Sino-Russian command integration—and the conduct of joint patrol activities, especially in East Asia, confirm that the military relationship is growing closer. In particular, in the Indo-Pacific, Beijing is the senior partner in this evolving relationship.³ Indeed, very recently China and Russia held their annual joint exercise in the region, and this despite resource-based pressure on Russia deriving from the ongoing invasion of Ukraine.⁴ These developments pose two important questions: What do recent changes in Sino-Russian military ties mean for cooperation

regarding the use of hybrid and gray zone tactics, and conversely, how will hybrid and gray zone tactics help create opportunities to further advance cooperation?

From a Chinese perspective, the answer to this line of questioning is significant, and the outcome of the war in Ukraine will inevitably affect it. Much to Chinese surprise, Russian performance in the early stages of the invasion has failed to meet Beijing's initial expectations.⁵ As well-informed foreign observers have noted, for Beijing, Russian military operations in the opening stages of the war were inconsistent with the country's military doctrine.⁶ In particular, the Chinese leadership has likely taken note of Russia's failure to accurately assess potential Ukrainian opposition, not to mention the lack of adequate preparation in terms of information operations and the wider cognitive dimensions of the war.⁷ This, in turn, might lead the Chinese leadership to reconsider whether and to what extent "some limits" to cooperation on hybrid tactics are desirable, if not necessary.

While the degree of cooperation between Russia and China will be affected by the outcome of the unfolding war, it is nonetheless possible to assess two relevant aspects of this question in the interim. First, it is possible to review how Chinese writers on strategy conceptualize hybrid tactics, and to what extent—if at all—they draw a distinction between hybrid and gray zone operations. Second, it is also possible to assess the extent to which such an understanding creates clear areas of opportunity in terms of cooperation with Russia.

Hybrid Warfare and Gray Zones as Geopolitical Competition

The sample of Chinese writers surveyed in this project presents "hybrid warfare" and "gray zone" competition as two different, albeit complementary, tools of geopolitical competition among states. In particular, Han Aiyong, an associate professor at the Institute of International Strategic Studies of the Chinese Communist Party's Central Party School, pointed out that "hybrid warfare is essentially closer to a competitive means by which great powers use indirect, low-intensity conflict to seek geopolitical advantage."⁸ By contrast, the same author suggested that competition in the gray zone focuses more on cognitive forms of conflict, with "psychological warfare, media warfare, legal warfare, economic coercion, and even diplomatic warfare . . . intended to create psychological and physical imbalances by exploiting the internal ills of competitors' economic and social development, and to create ideological confusion and even social unrest in their favor."⁹

Within this conceptual framework, hybrid and gray zone tactics represent two sides of the same coin. The key difference is that hybrid tactics are designed to address the conduct of limited proxy wars, whereas gray zone tactics oversee the conduct of non-kinetic operations directly against an enemy or competitor. Such preliminary observations come with two caveats, however. First, the notions of "hybrid warfare" and "gray zone" competition are foreign ideas imported into Russian and Chinese strategic thinking, making clear reference to their original development in the United States. Second, both concepts are presented as methods through which great powers engage in competition with each other—and specifically, how the United States engages with competitors such as Russia and China.

In the main body of English-language literature, however, the notions of "hybrid" and "gray zone" forms of competition are used to capture a distinctive set of Russian and Chinese behaviors. For instance, in the North Atlantic Treaty Organization's (NATO) vocabulary, the former term refers to forms of Russian sub-threshold coercive actions drawing upon the integration of different tools of statecraft (e.g., military,

diplomatic, economic, as well as information and legal). Insofar as gray zone activities are concerned, English-language literature tends to emphasize how this concept is helpful in specifically identifying Chinese actions that are seemingly designed to remain beneath the threshold of open war. Except for very limited attempts at reconciling this intellectual separation, in the English-language literature, hybrid tactics are the prerogative of the Russian state, while the gray zone is that of China.¹⁰ However, this distinction finds no correlation in the Chinese presentation of these concepts.

By contrast, the Chinese approach to the understanding of “hybrid” and “gray zone” forms of conflict is based on the assumption that international relations are a persistent struggle—in other words, that they are a zero-sum interaction. As a result, Chinese authors regard these methods of competition as desirable—or even necessary—ways to enable the shaping of the international order in a fashion that is favorable to authoritarian regimes like China and Russia. This idea can be clearly inferred by the Chinese claim that the United States and its allies have developed these concepts to undermine strategic competitors in the first place, with specific attention to China and Russia.¹¹ Thus, China should be able to master and respond to these forms of behavior. In one sense, however, such an intellectual approach, gauging a strong Leninist thinking, implies that China is already “at war” and that hybrid and gray area conflicts are inherent to this state of affairs.

According to the Chinese scholarship reviewed in this project, hybrid forms of conflict are designed to avoid direct confrontation among major powers. They target strategically important state actors that can either expand or maintain the reach and influence of any major power. In this respect, however, the authors draw a clear distinction about the intent behind the use of hybrid tactics. The intent behind U.S. “hybrid wars” is “offensive” and “globalist,” as the application of these tactics is designed to support and expand the country’s influence at the expense of strategic competitors like China or Russia. Russian hybrid tactics are instead defensive in nature, informed by a more limited aim of preserving Russia’s influence.¹² Relatedly, hybrid wars, because they take actions at the periphery of major power competition, would seem to make low-intensity conflict a reality in the contemporary world. Chinese writers seem to expect low-intensity conflicts to be a component of major power competition.¹³

Indeed, from this perspective, a Chinese writer observes that

the competitive logic of hybrid warfare is to create a “controllable” chaos or crisis and then to shape a favorable strategic posture by rebuilding peace and restoring order. This suggests that the ability to respond to major international crises and national governance has become a key element of great power competition.¹⁴

According to this conceptualization, the Chinese government’s tolerance for conflict is high because it is assumed that it can be kept at acceptable levels. In part, this is acceptable because the core actions are taking place away from a major power’s territory. The same author also added that in a hybrid context, new technologies and “non-contact” forms of competition—notably conflict in digital information spaces, which includes both conflict to disrupt or manipulate network systems and conflict conducted through social media—add to the possibilities and potential of the “controlled chaos” created by hybrid tactics.¹⁵ In other words, these new tools allow for a more integrated and wider-ranging capacity for the conduct of hybrid wars. By the same token, new technologies also increase the likelihood of hybrid tactics being employed.

Gray zone competition shares with hybrid tactics a heightened importance of integrating and synergizing different levers of national power. Similarly, both put considerable emphasis on the advantages of non-kinetic tools for the pursuit of competition. On the other hand, gray zone competition also has two features that make it very distinct from hybrid tactics. First, its core focus rests on the creation and management—both in defensive and offensive ways—of plausible legal and political narratives to enable the pursuit of specific courses of action.¹⁶ Indeed, legal narratives are a significant aspect of gray zone competition in that they relate to the advantageous use of established rules and norms to constrain, shape, and sanction behavior in the pursuit of national objectives. Within this context, competition in gray areas is about manipulating and exploiting ambiguities in international frameworks to craft a favorable narrative, while discrediting or undermining those set forth by competitors.¹⁷ From a Chinese perspective, therefore, gray zone conflict would seemingly fall first and foremost within the realm of psychological, political, and legal warfare—a key feature of Chinese strategic thinking about war and conflict.

The second distinctive aspect of gray area competition concerns the development of political narratives that specifically reinforce—or at least do not undermine—Beijing’s moral standing. In gray zone conflict, the core aim is to gain an advantage by justifying one’s actions. This is not meant solely to paralyze or limit responses to these actions; it is also meant to erode wider support that might be given to one’s competitors.¹⁸ This sheds new light on how Chinese writers view the utility of Beijing’s participation in multilateral institutions: they consider Chinese efforts to increase influence in these organizations as a way to guide the development of the organizations’ internal mechanisms and approaches in ways that favor Beijing’s preferences.¹⁹ This creates another clear distinction between gray zone activities and the objectives behind the mobilization of legal narratives in a “hybrid” conflict. As the same Chinese author remarks:

The pursuit of ambiguity in the gray zone is the use of the ambiguous space of rules and the international law system to justify one’s own behavior. Hybrid warfare, on the other hand, is to find a soft restraint on violence by established rules between the regulations of traditional and non-traditional warfare.²⁰

Chinese authors seem to understand the concept of hybrid tactics as involving competition for influence in states of strategic relevance in a competitive global environment, whereas gray zone competition may focus more directly on the competing powers themselves. Within this context, competition in the gray zone is intended to create psychological and physical imbalances by exploiting the domestic and internal challenges of a major power. The idea is to weaken the competitor from within through political confusion and social unrest. The significance of such a conceptualization of gray zone competition rests also in the inference that, for Chinese authors, this type of competition is actively conducted against China, thus reinforcing their zero-sum understanding of international relations.

Resilience against Destabilization as Cooperation

This intellectual framework suggests that Sino-Russia cooperation in hybrid and gray zone tactics is likely to focus on the double objectives of creating greater resilience at home and maintaining, if not increasing, influence in states of key strategic value overseas. The methods for such cooperation are likely to include a degree of coordination on military activities; yet, new technologies—such as quantum computing and artificial intelligence—and their potential application in shaping public

audiences' perceptions are also likely to become a primary area of Sino-Russian cooperation. Chinese authors, at least, view this type of cooperation as particularly desirable.²¹

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Indeed, Chinese authors view the use of social media and information networks as essential to enhance the effect of information dissemination to create favorable international public opinion and to affect the psychological conditions of public audiences in competing countries.²² These tools can also be very helpful in support of other political, economic, and military means of conflict in the conduct of hybrid wars. Within this context, technology is considered an invaluable tool to reduce gaps between developing and advanced powers—and, crucially, a way to afford precision in the targeting of audiences.

Chinese experts seem keen to prioritize Sino-Russian cooperation to address the risks of political destabilization abroad and at home. In particular, one author focused on the challenge of “color revolutions,” defined as Western-sponsored attempts at destabilizing countries with the ambition to promote regime change.²³ The same author identified states along the periphery of Russia and China as the first targets of a wider attempt at directly undermining Moscow and Beijing. In the Chinese view, purported attempts at regime change in North Africa and Central Asia, as well as presumed Western support for “separatist activities” in places like Xinjiang, Tibet, and Hong Kong, reinforce the need for Russia and China to cooperate closely. A perceived increase in the “violence” of these movements—as the case of the 2019 protests in Hong Kong highlights—also adds to such a need.²⁴

Geographically, Sino-Russian cooperation on hybrid and gray zone tactics should focus on enhancing public perceptions of Moscow and Beijing among other members of the Commonwealth of Independent States (CIS) and Shanghai Cooperation Organization (SCO). Cooperation should cover political, economic, and cultural aspects, with the aim of strengthening political trust and a perceived sense of friendship. Chinese authors are convinced that dedicated cultural exchange activities that reward cultural differences but reinforce an emotional link to China and Russia should be coordinated with political and economic initiatives.²⁵ For these Chinese authors, improving public perceptions of Russia and China also includes cultivating ties with elites in CIS and SCO countries. However, they note that strategic competitors like the United States might try to cultivate ties with Russian and Chinese elites in turn, with the aim of undermining the two countries' governments. As a result, Chinese authors emphasize the need for bilateral cooperation to minimize the risk of domestic corruption. Their solution is to promote cooperation to achieve greater monitoring of domestic elites and senior officials, while also seeking to promote positive incentives to ensure loyalty—or at the very least obedience—to the system.²⁶

In the realm of military affairs, Chinese scholars view joint exercises as a potential hybrid tool to counter the risk of “color revolutions.” Exercises are not hybrid tactics per se; yet, Chinese authors stress the political value of them as a hybrid tactic.²⁷ One major example in this context is the joint exercise Unbreakable Brotherhood 2020, conducted at a time of acute instability in Belarus.²⁸ The exercise was a response to perceived NATO provocations in the country and was intended to both strengthen ties with the regime in Belarus and enhance the cohesiveness within domestic audiences around the importance of supporting the Belarus authorities. Chinese specialists, therefore, regard exercises as potential hybrid tactics insofar as their desired effects are designed to shape, manipulate, and counter Western actions in the Russian and Chinese peripheries. Especially in the context of the SCO, the Chinese aim is to strengthen the combined Sino-Russian capacity for conducting exercises so that they can be used on short notice if needed.²⁹

Within the literature surveyed for this project, governance in cyberspace is another area of prime relevance in Sino-Russian cooperation. In this domain too, Chinese authors perceive a clear sense of challenge mounted by Western power—notably the United States.³⁰ The Western approach to cyber governance fundamentally undermines the Russian and Chinese approaches to sovereignty in this domain. From their perspective, cooperation should aim at promoting the Sino-Russian view that respect for sovereignty should guide developments in governance. In this context, Sino-Russian cooperation is important for shaping support within multilateral institutions such as the United Nations, and regional organizations such as the SCO, for a specific understanding of governance in cyberspace. Through these organizations, China and Russia can promote mechanisms to safeguard national laws and combat cybercrime as they see fit, while developing shared technical solutions and wider collaboration with other emerging powers to widen their influence. Unsurprisingly, cooperation assumes that in Russia and China private companies and the state work with each other, with business accepting subordination to national authorities in a fashion consistent with the ambitions of the Chinese civil-military fusion doctrine.³¹

Conclusion: Hybrid and Gray Zone Tactics as War by Other Means?

Chinese scholars envision cooperation with Russia as an inherent part of Beijing’s ascent on the international stage. In a world that is understood to be antagonistic toward China, with the United States perceived as engaging in the use of hybrid and gray zone tactics to destabilize and weaken Russia and China, these tactics are seen as necessary for China to survive and grow as a major power. The Chinese approach to international affairs as a struggle for survival invites three broad conclusions.

First, notwithstanding conceptual differences, among Chinese scholars both hybrid and gray zone tactics are about asymmetric forms of competition. The intellectual distinction in English-language literature—between hybridity as a form of conduct that pertains to Russia and gray zone as a form of competition relevant to understanding Chinese behavior—is not reflected in the Chinese literature. For them, the key distinction would seem to be that hybrid tactics involve higher levels of tolerance in terms of military engagement and destruction, while gray zone tactics put more stress on non-kinetic means. Further, gray zone tactics are directly applied against an opposing major power, whereas hybrid tactics apply to countries of strategic value in which low-intensity wars are acceptable. For Chinese scholars, gray zone tactics are clearly a priority area of cooperation. They view hybrid tactics, on the other hand, as a space of cooperation specially meant to prevent the loss of influence in areas of strategic significance in the CIS and SCO contexts.

Second, new technologies and their impact on the structures, perceptions, and political stability of societies are an invaluable addition to the pursuit of asymmetry in hybrid and gray zone tactics. Cyberspace, internet networks, and social media are crucial means to manipulate, destabilize, and weaken other major powers, directly or by seeking to undermine their influence. In this respect, Chinese authors consider the improvement of China's international image as a key area of gray zone cooperation, together with aggressive actions to politically destabilize competing major powers. Cooperation in developing the means to degrade—and, if necessary, destroy—the physical infrastructure enabling a competing major power's cyber activities seemingly falls within the category of hybrid tactics. Against this background, the establishment of plausible legal and political narratives as a way to maintain or develop positive perceptions of China and Russia are also more “active” ways to take advantage of these means.

Third, Chinese thinking about hybrid and gray zone tactics creates a predisposition for pursuing greater resilience against tactics of a similar nature from being deployed against Beijing and Moscow. For Chinese observers, destabilization and regime change are fundamental risks against which both Russia and China need to shield themselves.

Taken altogether, these conclusions suggest that, while doubts remain over the extent of Chinese cooperation with Russia after the latter's invasion of Ukraine, the content and perceived needs of this relationship are understood in similar terms by Moscow and Beijing. In fact, Chinese scholars view the political world as one of struggle—one in which hybrid and gray zone tactics may very well provide an asymmetric edge to tilt the scales of the international order in China's favor toward a more authoritarian balance.

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University of Helsinki and the National Defense University was established in August 2017. Previously she has worked as a senior researcher at the Finnish Institute for International Affairs. Pynnöniemi's responsibilities include development of research on Russian security policy at the University of Helsinki and at the National Defense University. To this end, a multidisciplinary research project titled "Russia's Role in the World in 2035: Interests, Resources, Challenges" was developed in collaboration with Pynnöniemi and the Russia Group at the National Defense University. The research project explores four main themes: Russian military policy and the changing character of war, Russia's strategic goals and the rupture of international system, security implications of the energy transition and climate change, and the resilience of Russia's political system. Within this larger research program, Pynnöniemi's own research focuses on Russian foreign and security politics, with emphasis on changes in strategic thinking (doctrines, strategies, and concepts), conceptualization and implementation of information warfare tools as part of Russian foreign policy, and the analysis of threat perceptions and enemy images in Russian strategic communication/deception.

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Appendix

The following documents made up the core source base of this project. The original Chinese and Russian texts have been translated into English, edited, and excerpted below. Citations for the full-length original documents are provided.

Russian Documents on Sino-Russian Arms Sales and Technology Transfers

Alexander Gabuev and Vasily Kashin, *Вооруженная дружба: как Россия и Китай торгуют оружием* [Armed Friendship: How Russia and China Trade Arms] (Moscow: Carnegie Moscow Center, November 2, 2017), https://carnegieendowment.org/files/CP_Gabuev_Kashin_web.pdf.

Editor's note: The now-closed Carnegie Moscow Center is an affiliate of the Carnegie Endowment for International Peace.

- **Main Conclusions:** In the 1990s, Chinese orders ensured the survival of the Russian defense industry (which had suffered from the collapse of the USSR) and preserved its global competitiveness. In turn, after Western sanctions were imposed in 1989, Russia became the main source of advanced weapons for China. Thanks to Russian-Chinese military-technical cooperation, China was able to radically transform its armed forces into a modern military machine. The leaders of the Russian military-industrial complex (MIC) understood that the weapons sold to China would eventually be copied. Nevertheless, Moscow exported weapons to China in an effort to preserve the defense industry and earn money to build new-generation weapons systems. The country's military and political leadership blocked deliveries of the most

sensitive systems, which could ensure a rapid breakthrough of the Chinese military-industrial complex and undermine the competitiveness of Russian arms manufacturers. On the whole, this approach turned out to be justified. In the mid-2000s, the supply of weapons from Russia to China noticeably decreased. The reasons were the saturation of the Chinese market, the progress of the military-industrial complex in the PRC itself, and the increased concerns of the Russian leadership about Chinese copying and potential competition in the markets of third countries. Some Russian leaders have expressed fears about the growth of Chinese military capabilities near Russia's Siberian and far eastern borders. Military-technical cooperation between Russia and China resumed growth in the 2010s, but a major breakthrough occurred in 2014. After the sharp deterioration in relations with the West, the Russian leadership conducted a systematic assessment of the risks of partnership with the PRC, including in the field of military-technical cooperation. Moscow concluded that the risks of cooperation with China were much lower than was commonly believed. The Chinese military industrial complex is less and less dependent on the unlicensed copying of Russian equipment and more and more reliant on its own developments. Fears of "Chinese invasion east of the Urals" have also turned out to be exaggerated. In these circumstances, Moscow has decided to sell such advanced systems as S-400 air defense systems and Su-35 fighter jets. Military-technical cooperation does not play a significant role in the trade between the two countries, accounting for no more than 5 percent of trade turnover. For the Russian military-industrial complex, arms sales to China are no longer a vital necessity, although China remains one of its most important export markets. However, the military-industrial complex plays an important political role, ensuring the strategic depth of the Russian-Chinese partnership. Russia still maintains serious advantages over China in a number of military production sectors. These are the creation of air defense equipment and some types of radar equipment, aircraft engine construction, underwater shipbuilding, and so on. However, in other areas China is now ahead of Russia, especially in the production of unmanned aerial vehicles. Overall, for the Chinese armed forces, buying weapons from Russia is a reliable way to quickly increase their military power (particularly given the possible escalation of conflicts in the South China Sea, the East China Sea, and the Taiwan Strait). The Ukrainian crisis, the cessation of Russia's military cooperation with the West, and Western sanctions against Russian arms manufacturers have increased Moscow's interest in importing Chinese military technology and equipment. There are isolated examples of the purchase of Chinese military technology for the needs of the Russian Armed Forces, but this phenomenon has not yet become large-scale.

- The crisis around Ukraine, which broke out in early 2014, marked the beginning of a new stage in Russia's relations with the outside world. In the face of U.S. and EU sanctions, Moscow began to deepen its partnership with China, the largest country that did not publicly condemn Russia for its actions in Crimea and eastern Ukraine and did not join the sanctions regime. By that time, the political relations between Moscow and Beijing already had the official status of a strategic partnership, and since 2010, China had become Russia's largest trading partner after the European Union. Nevertheless, the Ukrainian crisis has raised cooperation between the two largest powers in Eurasia to a new level. One of the most important elements of this partnership was the development and deepening of military-technical cooperation (MTC).
- For the first time, Moscow conducted a comprehensive study of the potential risks that a deeper partnership with China could entail, including in the field of military-technical cooperation. The

results of the analysis convinced the Kremlin that the risks of such cooperation had previously been exaggerated.

- Despite the relatively small volume of transactions in monetary terms (about US\$3 billion per year), the Russian-Chinese military-technical cooperation is of great importance for both sides. Although today Russia's defense industry is not as dependent on Chinese purchases as it used to be, China remains a major export market for the Russian defense industry, and demand from the PLA has spurred the interest of other buyers. For Beijing, the Russian defense industry is the quickest way to obtain systems that can strengthen the PLA's advantage at strategic points where military tensions between China and U.S. allies are possible. Finally, cooperation in such a sensitive area as arms serves as an important factor in strengthening the Moscow-Beijing political axis at a time when the parties are not seeking a formal military alliance.
- The importance for the Soviet Union of resuming military-technical cooperation with China is demonstrated by the following fact: China, which used to be one of Moscow's main rivals, was the first foreign buyer of the most advanced Soviet aircraft, while its traditional allies settled for the less advanced MiG-29. The memoirs of Chinese military leaders published in recent years indicate that the Chinese were given fairly broad access to see Soviet military innovations. Moscow even had preliminary talks with Beijing about the possibility of supplying an aircraft carrier and carrier-based aircraft. Apparently, the Soviets assumed that close ties with China would be necessary for successful development after the end of the Cold War, and they were willing to use military technology exports to strengthen relations with Beijing. The Russian Federation thus became only a natural extension of this line.
- Increased military contacts and reduced tensions in border areas contributed to the gradual removal of obstacles to the export of increasingly sophisticated military equipment to China and the transfer of Russian technology there. Opposition to such cooperation on the part of the Russian military gradually weakened in the 1990s. China's interest in military cooperation with Russia increased sharply in the late 1980s due to China's restricted access to Western sources of military and dual-use technologies.
- The combination of these factors led to the fact that after the collapse of the USSR, the Russian leadership immediately began to create the legal basis and organizational infrastructure for military-technical cooperation with China.
- An important feature of the military-technical cooperation of Russia and China was the rather strict formal requirements of the Chinese side to the secrecy of transactions, even in cases where the secrecy was clearly meaningless and even absurd. As a result, Russian and Chinese officials often refuse to discuss projects in the field of military-technical cooperation, even when the whole world knows about them.
- China's attitude towards military issues changed radically under the influence of the war in the Persian Gulf (1990–1991), when the United States and its allies defeated and expelled the Iraqi army from Kuwait with minimal losses and in a short period of time. Saddam Hussein's army of 1990, apart from its rich military experience, was far superior to the PLA in technical equipment. The war demonstrated the growing role of new types of weapons and military equipment, in the development of which China lagged particularly behind: electronic warfare systems, technical reconnaissance, guided weapons, air defense systems, etc. China's military leadership had to deeply rethink new trends in military affairs and the country's military construction priorities.

- The Chinese side was well aware of the complexities of the Russian situation. Significant purchases of new weapons for the Russian general-purpose forces were curtailed in 1992–1993 and resumed only after 2008–2009. The Russian military-industrial complex survived on exports, and amid the global decline in military spending in the 1990s, the Chinese and Indian markets were the main targets. Thus, when negotiating with Russia, the Chinese had enormous market power and used it successfully.
- The first major deals reflected China's priorities in ensuring its defense capabilities and were primarily related to combat aircraft and aviation weapons. China felt the weakest in this area.
- Thus, the story of Russian supplies of Su fighters to China may be viewed as a success. Russia was able to preserve and partly even modernize a critical part of its own military-industrial complex during the difficult period, while the damage caused by the Chinese violation of Russian intellectual property rights was not too great and was limited to the Chinese market.
- Moreover, the evolution of Russia's foreign policy and deterioration of Russia's economy in the 1990s have appreciably affected the expansion and deepening of military cooperation with China. The poor state of MIC enterprises forced the managers of specific factories, as well as captains of Russia's defense industry, to lobby more and more actively for the development of ties with China. The end of optimism about relations with the West that was characteristic of the first years of Russia's foreign policy is also important.
- As a result, the Russian-Chinese military-technical cooperation in the 1990s covered almost all areas of arms and military equipment production for general-purpose forces. The result was a frontal rearmament of the entire Chinese military machine, which, with Russian help, made a leap forward by one or two generations of military equipment in most areas. This process was generally ignored in the United States and other Western countries, which assessed the Russian industry too negatively, exaggerating the depth of its decline, and were particularly arrogant of China's efforts to modernize its military-industrial complex.
- On the whole, due to cooperation with Russia, in the 1990s to early 2000s China was able to radically upgrade PLA and receive considerably more modern armed forces which are better suited for combat operations in the twenty-first century. At the same time, military-technical cooperation with Moscow enabled Beijing to significantly enhance the potential of its own military-industrial complex through the purchase of licenses, unlicensed copying of equipment, as well as training by Russian specialists.
- In the mid-2000s, there was stagnation in Russian-Chinese military-technical cooperation.
- This situation is explained by a whole complex of reasons affecting China, Russia, and relations between Moscow and Beijing. First of all, for the Russian military-industrial complex, exports to China are no longer a vital necessity. Having retained key defense enterprises in the 1990s, Russia began to plan a largescale rearmament of its own armed forces as early as the mid-2000s.
- The importance of the Chinese market for the domestic military-industrial complex was declining not only due to the growth of effective demand for Russian military equipment on the part of the Russian Armed Forces; it was also facilitated by the diversification of arms exports.
- Finally, rising hydrocarbon prices and a significant inflow of petrodollars into the Russian treasury provided Moscow with additional financial resources. The state had no trouble covering its social obligations and expanding them with the help of oil and gas revenues. It was now possible to be

more selective about other sources of income, including arms exports to China. In addition, the role of military-technical cooperation for the stability of relations between Moscow and Beijing, which had been one of the pillars of the Russia-China partnership in the 1990s, began to diminish.

- Amid the rapid growth of mutual trade, the share of military-technical cooperation in its structure was decreasing, making arms trade one of the many elements of cooperation rather than the basis of bilateral economic relations.
- Moscow has paid much more attention to risk analysis. The Russian side was increasingly concerned, first, about the problem of the scale of unlicensed copying of the equipment received from Russia, and second, about the potential of future competition from the Chinese military-industrial complex in the newly acquired markets, especially in North Africa and Latin America.
- Despite the final resolution of the border issue with China in 2004–2006, the Russian leadership rekindled discussions on the possibility of Chinese economic, demographic and, in the distant future, military expansion into the sparsely populated contiguous areas of the Russian Far East and Eastern Siberia.
- The potential connection between the restriction of export of advanced weapons systems to China and Moscow's concern over the PLA's intentions is also confirmed by the informal statements of the leaders of the Russian military industrial complex. These discussions apparently resulted in the decision not to rush to sell to China the latest systems, like S-400 air defense systems or Su-35 fighters, but to insist on the most favorable (and not necessarily acceptable to China) terms. The absence of a deal at that time was better than a deal that did not satisfy Moscow's growing demands for bilateral military-technical cooperation. In China, there was also a complex of reasons that, in the middle and second half of the 2000s, temporarily reduced Beijing's interest in purchasing Russian equipment. After the programs of licensed production of Su-27SK fighters ended in 2003–2004 and the main supplies of Su-30MKK fighters ended, China began to gradually reduce the import of Russian weapons. This was the result of the increased self-confidence of the captains of the Chinese military-industrial complex, who made obviously unrealistic promises to their leadership.
- A gradual recovery in the volume of military-technical cooperation was recorded in the early 2010s, when the Chinese side was forced to admit the limited capabilities of its industry and its dependence on Russia for some critical components. Moscow also became more optimistic about the prospects for profitable cooperation with China, partly as a result of the economic crisis, which once again raised the issue of diversifying the sources of budget revenues. However, the Ukrainian crisis of 2014 had a decisive influence on the deepening of Russia-China military-technical cooperation at the present stage.
- It was the Ukrainian events that accelerated Russia's "pivot to the East": after the introduction of sanctions, Moscow began to intensively search for opportunities to increase ties with its Asian partners in order to compensate for the reduced volume of loans and investments due to sanctions, as well as to provide access to technology. The only obvious candidate for the role of a "friend in need" was Beijing. China was the only major economy that did not impose sanctions on Russia.
- Recognizing the need to strengthen its partnership with China, in the spring of 2014 various Russian agencies analyzed the potential risks of cooperation with China. Before rushing to embrace Beijing, Moscow wanted to understand the limits of the giant neighbor's safe participation in the Russian economy.

- In particular, the analysis of the situation with the Chinese presence beyond the Urals showed that Russia should not be afraid of China's "creeping demographic expansion" into vacant territories.
- Moscow has come to the conclusion that the perceptions in the Russian media, the expert community, and some of the authorities about the dangers of Chinese migration to the Russian Far East proved to be overly alarmist, and that the scenario of the future "annexation" of Russian territories by China according to the "Crimean scenario" was completely unrealistic. In addition, the Russian leadership has gained a more adequate understanding of the internal transformation of the Chinese economy: the aging population, a shrinking workforce, and a policy to reduce the consumption of natural resources.
- Clearly aware of the problems that Chinese arms manufacturers face and will face, Moscow came to the conclusion that in the long term China will become less dependent on the Russian military industry and that, as the Chinese defense industry develops without Russian participation through direct sales of equipment, transfer of licenses and possibly joint arms development, in the future Russian opportunities to make money in the Chinese arms market will become increasingly limited.
- This change in approach was evidenced by a program interview with Rosoboronexport CEO Anatoly Isaikin in April 2015 in the Kommersant newspaper, in which, among other things, the contract for the sale of S-400 air defense systems to China was announced. In response to a reporter's question about whether Russian enterprises are not afraid to enter into cooperation with PRC enterprises, Isaikin replied: "I believe that if we work in China's interests, we also work in our own interests."
- As a result of this analysis, Moscow's attitude to the development of military cooperation with China has changed to a more open one. Selling advanced weapons to China became part of the strategy of rapprochement with Beijing in response to the systemic crisis in relations with the West.
- Moscow agreed to more actively help China build up its military power and capabilities in light of the PLA's tasks in the Pacific (of course, not disinterestedly), expecting in return that China would help Russia more easily survive the most acute period of confrontation with the West through investments and loans, as well as the necessary technology (also not for free). On the whole, this approach worked. Of course, China did not help Russia on a large scale for a whole complex of reasons, among them the consequences of the anti-corruption campaign in China, which paralyzed the decision-making process at many state enterprises; the drop in commodity prices; and the slowdown of the Chinese economy itself. In addition, PRC companies operating in global markets have been attentive to Western sanctions. However, despite this, Beijing has made several important investments in projects prioritized by Russian president Vladimir Putin, as well as providing a number of Russian companies with access to cheap financing. The most significant symbolic gesture of support from Beijing was the participation of Chinese companies in the construction of a power bridge to Crimea, despite Western sanctions. In the field of military-technical cooperation, major shifts took place in the fall of 2014, shortly after the U.S. and EU sectoral sanctions came into effect. Moscow and Beijing completed years of negotiations on the supply of four divisions of Russia's latest S-400 air defense system.
- According to Russian Defense Minister Sergei Shoigu, the volume of military goods and services sold to China in 2016 exceeded USD \$3 billion, and the total portfolio of Chinese orders is about USD \$8 billion.
- Having made serious progress in independent development and system integration of complex equipment, the Chinese continue to suffer from disproportionate development of various

components of their huge military industrial complex and lag behind many suppliers of critical materials and components. Russia fills these gaps by carrying out both relevant R&D and supply in China's interests. Today, cooperation is primarily not a small number of large arms supply contracts, but dozens or hundreds of small agreements, hardly identifiable by the media. The Ukrainian crisis, the cessation of Russia's military cooperation with the West, and sanctions against Russian arms manufacturers have led not only to an increase in Russian arms supplies to China, but also to an increase in Russian interest in imports of Chinese technology and military equipment.

- In some areas of military equipment production, China is already ahead of Russia. Unmanned aerial vehicles are a typical example.
- Based on the results of two years after the Ukrainian crisis, we can say that the deepening of military-technical cooperation between Russia and China is evident. This is evidenced not only by structural shifts in cooperation, but also by its increased volume.
- Russia retains serious advantages over China in many areas of military production due to significant state investments, which have resumed since the late 2000s. This is true of air defense equipment, aircraft engines, a number of types of radar technology, submarine shipbuilding, and so on. However, there are also areas where Russia has begun to lag behind.
- The S-400 air defense systems and Su-35 fighters sold by Moscow could in the future significantly enhance the PLA's combat capabilities in critical areas in the Pacific, where China increasingly needs to demonstrate its deterrence capability against the United States and its allies, or where there is a risk of limited military confrontation.
- The task of curtailing Russian-Chinese military-technical cooperation is impossible; the United States and Japan can only try to correct the course of the Russian Federation, inducing Russia to refuse to expand cooperation to other sensitive areas like space technology or missile warning systems. However, given the recent tightening of anti-Russian sanctions by the U.S. Congress, the opportunities for Washington and Tokyo to play in this field are limited, and therefore they can only closely monitor the development of military-technical cooperation between Moscow and Beijing.

Ruslan Polonchuk, "Товарищество пока на доверии: Военно-техническое сотрудничество России и Китая требует совершенствования" [A Partnership Based on Trust So Far: Military-technical cooperation between Russia and China needs improvement], *Военно-промышленный Курьер* [Military-Industrial Courier], February 16, 2021, <https://vpk-news.ru/articles/60886>.

- An analysis of Chinese military and technical publications shows that Beijing positively evaluates the opportunities for a progressive increase in bilateral military-technical cooperation in the medium term.
- At the same time, in practice Beijing is striving to gradually abandon the purchase of large quantities of Russian arms and military equipment and to transfer bilateral military-technical cooperation to a qualitatively new level.
- In general, China's leadership officially has no doubts about the importance of further deepening military-technical cooperation with Russia. At the same time, as Russia's economic potential grows in the long term, contradictions may arise in Russian-Chinese relations due to the mutual desire to expand their spheres of interests in the Asia-Pacific region and in Central Asia. Such a scenario could lead China to contain Russia, including in the field of military-technical cooperation.

- However, Russia faces a difficult choice: provide China with advanced technologies, realizing that they are likely to be copied, or refuse to sell weapons, knowing that Chinese defense industry enterprises will develop comparable systems on their own in the near future. The former strategy of Russian arms exports, which consisted of selling “secondary” technologies, is no longer viable. China’s military industry has sufficiently caught up with Russia’s, so now the Chinese are interested only in the most modern weapons we have.
- It seems expedient to further diversify Russian-Chinese military-technical cooperation and supplement it with the joint development of technologies.

Chinese Documents on Sino-Russian Arms Sales and Technology Transfers

Li Shuyin, “对中俄军事合作的历史考察与思考” [Investigation and consideration of the history of China-Russia military cooperation], 俄罗斯学 [Academic Journal of Russian Studies], no. 3 (2016): 5–8, <https://elsxk.hlju.edu.cn/info/1054/1543.htm>.

- The growing maturity of Sino-Russian state relations and the deepening of political mutual trust between the two countries provide the political prerequisites for carrying out military cooperation. China’s growing economic strength and urgent need for defense modernization, as well as Russia’s still strong military and technological capabilities, provide the practical requirements and technical prerequisites for bilateral military cooperation, allowing both countries to complement each other’s strengths and weaknesses. In addition, the similarity of their military establishments provides facilitative conditions for military cooperation between the two countries. In the current international security situation, both countries face security pressures to deal with various traditional and nontraditional threats, and they have common interests in opposing hegemony, maintaining world and regional peace, combating the “three evils,” and safeguarding their national interests. This pursuit of security in turn provides internal momentum for the deepening of military cooperation between China and Russia, giving it long-lasting vitality and impetus. On this foundation, China and Russia have now formed a “three-in-one”—military-political, military-technical, and military-operational—military cooperation relationship.
- Due to the arms embargo imposed on China by the European Union and the United States, Russia has now become China’s most important source of advanced military equipment, and as a result, China has also become the second-largest export destination of Russian weapons after India. According to Russian media estimates, arms exports to China account for an average of 20 percent of Russia’s total exports, and in individual years account for 40 to 50 percent of all Russian arms exports. To ensure that military-technical cooperation goes smoothly, China and Russia have established the Intergovernmental Commission on Military-Technical Cooperation, which meets annually in the two countries on a rotating basis. Currently, China-Russia military-technical cooperation is focused on China’s purchase of modern warplanes, ships, new land equipment, and air and missile defense weapons from the Russian side. According to public reports in Russian and Chinese media, China has become the world’s largest user of the Su series of combat aircraft. Between 1990 and 2005, Russia sold China nearly 200 combat aircraft of various types, 12 battalions of C-300 anti-aircraft missiles, a number of Tor missile systems, four Hyundai-class destroyers, and 12 Sovremenny-class destroyers. China was the largest importer of Russian weapons until 2006, when India replaced it. According to the Russian newspaper Red Star, the two

sides signed a USD \$5 billion arms contract in September 2005, under which Russia would supply, over a three-year period, Su-30MKK multi-purpose fighters, Kilo 636 diesel-electric submarines, 956 and modified 956 Sovremenny-class destroyers, and S-300PMU air defense missile systems. More importantly, China has purchased production licenses for Su series fighters, flamethrowers, and other military products. In addition, China and Russia have cooperated in the aerospace field, jointly carrying out scientific research and experimental design work. Recently, the two countries' defense ministries have been negotiating the export of Russian Su-35 fighter jets and S-400 air defense missiles to China. Since 2014, with the intensification of Western economic sanctions against Russia, Sino-Russian military cooperation has become increasingly complementary, ushering in a "golden age" of China-Russia military-technical cooperation. On November 26, 2015, at a regular press conference of China's Ministry of Defense, spokesperson Wu Qian said that China and Russia had achieved "milestones" in cooperation projects for Su-35 fighter jets and S-400 anti-missile systems.

- As an important component of the Sino-Russian strategic partnership of coordination, China Russia military cooperation will maintain strong development momentum for a considerable time to come. From China's point of view, learning from others and introducing and drawing on relatively mature foreign military-technological achievements can, in a relatively short amount of time, raise China's level of defense modernization, especially naval and air force weapons modernization, effectively curb hegemonism and power politics, reduce the security pressures it faces, and prevent the infiltration of international terrorist forces. As a country that both possesses relatively advanced military technology and weapons and enjoys the right to sell and transfer military technology on its own, Russia has naturally become China's first choice for military cooperation. From Russia's point of view, strengthening cooperation with China in the military field is also of strategic importance. Facing serious threats on its western and southern fronts, Russia is bound to seek strategic mutual trust between Russia and China and strengthen China-Russia military cooperation.
- As the level of mutual trust between China and Russia continues to rise, China-Russia military-technical cooperation is moving to the highest stage—joint development of high-tech weapons and equipment—and Russia has even begun buying military products from the Chinese side. China has now started to provide the Russian side electronic components for aerospace, diesel engines for ships, and seaborne supply systems for ocean-going supply ships. [Additionally,] the subject of cooperation will be more sensitive. This is reflected in China and Russia sending their most advanced technical equipment to participate in the "Peace Mission" and "Joint Sea" joint military exercises, as well as in the continuous development of China-Russia military-technical cooperation toward the field of key and sophisticated weapons, especially in the increasingly strong trend toward joint development of modern equipment. Examples include cooperation in nuclear submarine design and manufacturing, space, and missile attack warning. In short, China-Russia military cooperation will be higher-level, deeper in content, and more profitable.
- It cannot be denied that some problems still exist in the field of China-Russia military cooperation. The first is that mutual trust between the two sides remains insufficient. In Russia, some people who start out from a Cold War "China threat" mentality maintain that military cooperation with China, especially military-technical cooperation, will have a negative impact on Russia's long-term security, and that Russia should "hold back a few tricks" from China. Some people in China, on the other hand, voice dissatisfaction with the obvious disparity in the sale

of weapons and equipment to China and India, maintaining that this runs counter to the China-Russia strategic partnership of coordination. The second is that improvement is still needed in the specific modalities of military-technical cooperation. For a long time, China-Russia military-technical cooperation has mainly been a buyer-seller relationship with China buying and Russia selling. China hopes to change this kind of cooperative relationship dominated by buying and selling into one of technology exchange and cooperation, with joint research and development and mutual benefits, in order to effectively raise the level of China's military modernization equipment and maintain national security. Russia, for its part, has frequently criticized China's imitation of Russian-made weapons. Since 2000, along with the rapid advancement of China's military technology, its advanced weapons development capabilities have grown increasingly strong. Breakthroughs have been achieved in some fields and key technologies, and the defense industry is now able to meet the nation's needs for weapons and equipment updating, upgrading, and modernization. Therefore, in the field of military-technical cooperation, there will be a greater shift toward purchasing key technologies and sophisticated weaponry, and the emergence of a new situation in which China even exports equipment to Russia is not to be ruled out. The third problem is that a competitive relationship between China and Russia will form in the arms export market in the future. As Chinese-made weapons continue to go global and the two countries' weapons and equipment become more "homogeneous" in terms of design concepts, use characteristics, and prices, Russia fears that China will crowd out Russian weapons from the market, thus affecting Russian exports of advanced military technology to China.

- In the history of Sino-Soviet relations, the disparity in power between the two militaries objectively caused an asymmetry in bilateral relations and an imbalance in military cooperation, while the Soviet Union's deep-rooted chauvinism led it to regard itself as the major party and the major power, positioning military cooperation between the two sides as a relationship of guiding and being guided, giving and receiving, repeatedly disrespecting the interests of the other side and imposing itself on others, threatening to cancel military aid at every turn, and seriously hurting the feelings of the Chinese people.
- The "extended family" style of military cooperation relationship that draws ideological boundaries and transcends normal national interests is doomed to be short-lived and will eventually harm the relationship between the two countries due to its high degree of political sensitivity. The fundamental reason why China and the Soviet Union turned from alliance to confrontation in the 1950s and 1960s was the dislocation between ideology and actual national interests.
- The current military cooperation between China and Russia is subordinate to and serves the modernization of the Chinese military, creating a safe surrounding environment for defending national interests during a time of important strategic opportunity, but it also conforms to Russia's strategic need to stabilize its neighborhood and ensure the global balance of strategic power, as well as the idea of using arms sales to drive economic development. Consequently, military cooperation will become an important factor in promoting the healthy development of bilateral relations and maintaining regional and world stability.
- This proves that placing the emphasis on foreign technical assistance or the purchase of foreign weapons inevitably results in the dependence of China's national defense undertakings. Fundamentally enhancing military strength, on the other hand, requires instead the selective and focused introduction of key foreign equipment and technologies while adhering to self-reliance.

Russian Documents on Sino-Russian Military Exercises

Vladimir Vinokurov, “Глобальное совместное патрулирование Россия – Китай: стратегическое взаимодействие или военно-политический союз?” [Global Cooperative Patrol: Russia & China: Strategic Cooperation or a Military-Political Alliance?] *Военно-промышленный Курьер* [Military-Industrial Courier], September 30, 2019, <https://vpk-news.ru/articles/52737>.

- In September, the deputy chairman of the Central Military Committee of the PRC, Zhang Yuxia, and Russian minister of defense, Sergei Shoigu, signed an agreement on the further strengthening of cooperation. According to information from the Committee of the Federation Council on the defense and security of the Russian Federation, the agreement may include the exchange of technology and the Chinese use of elements of the Russian Federation’s anti-aircraft defense systems in the Far East, which testifies to a high level of mutual trust. In the White Book of defense published by Beijing on July 24, it is written that military cooperation with Russia has developed to a high level and plays a significant role in supporting global strategic stability. It is also highlighted that military cooperation is not directed against any third party and will include air, land, and sea forces. Beginning in 2012, officers in both armies have conducted eight rounds of strategic consultations. In 2017, Russia and China organized their first collective naval maneuvers in the Baltic Sea. In 2018, a formation of the Chinese People’s Liberation Army participated in the “Vostok” strategic exercises. In April–May of the same year “Naval Interaction (Joint Sea)” took place in the region of Qingdao.
- On July 23, the Russian and Chinese Air forces carried out their first cooperation air patrol with long range aircraft over the water around Japan and the East China Sea, eliciting an unpleasant reaction from military allies of the United States in the Far East and in other regions of the world. Western experts viewed these actions not as just a regular routine exercise, but as a kind of demonstration of Russian and Chinese readiness for further military collaboration.
- Based on official statements by China’s top leaders, they adhere to a policy of non-alignment, exclude military alliances with anyone, oppose the use of force, and favor a peaceful resolution of disputed issues. So, presenting to the members of the Standing Committee of the Politburo of the Central Committee of the PRC and high-ranking officials with a speech on the country’s foreign politics, Xi Jinping declared that China would not enter a military block with Russia or any other country. This would tie Beijing’s hands. China would expand its influence in the world and form a network of allies on all continents through soft power.
- A military alliance between two such powerful countries would change the entire strategic position of the world. This disturbance is caused not only by the above-mentioned actions in the military and military-technical spheres, but by the fact that the two countries hold identical or similar positions in the majority of international problems and demonstrate them collectively on the world stage.
- These and certain other factors provide a context for the development of mutually beneficial relations between these countries in the interest of mutual opposition to the threats and challenges of modernity and the strengthening of the world order. The question of a military alliance is evidently not entirely imaginary.
- However, conversations on the creation of an official military-political union are premature. This is entirely understandable. Such unions, not to mention states, are not historically threatening

to anyone, conducted only in anticipation of extreme circumstances, and created with defense in mind. In other words, the activities of Moscow and Beijing in this sphere will depend largely on the activities of the West and its allies.

Ruslan Polonchuk, “Военное сотрудничество России и Китая” [Russia and China’s Military Cooperation], *Этносоциум и многонациональное общество* [Ethnosocium and Multinational Society] 1 (2021): 95–105. <https://www.elibrary.ru/item.asp?id=44888630>.

- In 2015–2020, Russia and China continued their military-technical policy. Russia and China continued meetings between top military officials. At the same time, the focus of cooperation between Moscow and Beijing was distinctly “anti-American.” One of the most important areas of military cooperation during this period was joint Russian-Chinese military exercises. Strategic command and staff exercises (SSCE) were held regularly from 2015 to 2020. One of the most ambitious maneuvers was “Vostok-2018,” with the participation of Chinese servicemen. The SSCE was organized under the personal leadership of Russian defense minister Army General S.K. Shoigu. At five ranges and water areas in the Sea of Okhotsk, the Sea of Japan, and the Bering Sea, 300,000 servicemen, more than 1,000 aircraft, 36,000 tanks, and up to 80 ships and support vessels participated. According to the Defense Ministry of China, China sent about 1,600 soldiers, more than 300 vehicles, and 30 aircraft and helicopters for the exercise “Vostok-2018,” and then the same the following year for “Center-2019” as well. About 100 servicemen of the PLA and 18 vehicles were involved in the “Caucasus 2020” SSCE. The naval exercises known as “Maritime Cooperation” are planned and coordinated by the PLA Command with the specific political tasks facing the PRC in mind. Joint naval maneuvers have been held annually since 2015 in the South China Sea and the Baltic Sea. According to PLA commanders, the varied geography of the exercises is a way to mark the growing military power of the two countries. The Chinese and Russian navies have also been involved in the exercises. In December 2019, China, Russia, and Iran jointly conducted a three-day naval exercise in the Gulf of Oman. The maneuvers were held to demonstrate a high level of coordination of joint maritime activities amid escalating tensions between the United States and Iran. The naval exercises were aimed at two main tasks: to demonstrate the increased capabilities of the PLA to combat traditional and non-traditional threats and to obtain information on the training methods and specifics of the Russian Navy. Anti-terrorist exercises have become a topical area for strengthening military ties with Russia in the fight against international terrorism, separatism, and religious extremism, both on a bilateral basis and within the framework of the Shanghai Cooperation Organization (SCO). The anti-terrorist exercise “Peace Mission” of the Armed Forces of the SCO member countries has received considerable attention. According to Chinese commanders, this exercise has a stabilizing effect on the regional situation and prepares the country’s armed forces for counterterrorist actions in the territory of the Xinjiang Uygur Autonomous Region. In October 2019, Novosibirsk Oblast hosted the “Cooperation-2019” exercise of anti-terrorist units of the Russian Federal Guard Service and People’s Armed Militia of the People’s Republic of China, where joint actions against international terrorist groups were practiced. The peculiarity of anti-terrorist exercises of Russia and China is that they practiced interaction between battalion-tactical groups, while Sino-Pakistani and Sino-Thai exercises of similar orientation involve units of marines and PLA Airborne Forces numbering from 150 to 250 servicemen. Joint air patrols in the Asia-Pacific region by Chinese and Russian bombers are becoming a new tool for achieving long-term political goals in the region. At the end of December 2020, the Russian Air Force and PLA Air Force conducted the second joint air patrol

by long-range aircraft. The air group, consisting of two strategic bombers TU-95 MS (Russia) and four H-6K (PRC), carried out air patrols over the waters of the Sea of Japan and the East China Sea. During the patrols, the aviation strictly adhered to international law without violating the airspace of foreign states. The computer-based missile defense (BMD) “Aerospace Security” exercise is seen by the Chinese leadership as a response to the U.S. deployment of the THAAD missile defense system in South Korea. According to Beijing, their main purpose is to demonstrate to regional rivals the high level of relations with Russia. The peculiarity of the Russian-Chinese exercises, which began in 2017, is the use of computer simulations of the missile defense system of the two countries. Let’s specify that the work in real conditions is not possible because of the high level of secrecy and prohibition of access to the facilities of the national missile defense systems. Engineering and design problems at this stage make it impossible for Chinese engineers to develop their own missile defense system, which is confirmed by the unrelenting interest of Chinese specialists in Russian S-400 and S-500 systems, which could eventually form the basis of a Chinese missile defense system.

- As for Russian-Chinese military-political cooperation, we should note the multi-vector orientation of the ongoing military exercises. In accordance with the requirements of modern military art, it seems advisable to continue to conduct joint maneuvers of motorized infantry units, which would help military personnel to master the skills of combat in urban areas. At the same time, it would be most appropriate to conduct them at PRC ranges, in order to get acquainted in practice with the pros and cons of the theater command system created in 2016 in the PRC according to the U.S. model. Given the rapid development of PLA naval forces, it is possible to organize Russian-Chinese naval patrols to jointly carry out flag demonstration tasks in peacetime.

Vasily Kashin and Colonel General Leonid Ivashov, “Совместная оборона. Против кого дружат военные России и Китая” [Joint Defense. Russian and Chinese militaries are friends against whom?], *RIA Novosti*, July 2021, <https://ria.ru/20210705/oborona-1739958628.html>.

- Military experts emphasize that although the possibility of a military conflict with NATO countries is extremely unlikely, it exists. Therefore, neighboring states need to work out the reflection of potential aggression. “Any such maneuvers are designed to work out the real situation. We have to watch the reaction of the West, especially the Pentagon, but not bow our heads to them and ask their permission,” says Colonel General Leonid Ivashov, former head of the Main Directorate for International Military Cooperation of the Defense Ministry. In the early 2000s, the joint exercises were declared to be anti-terrorist, but now they have taken on a high-tech, advanced nature, Vasily Kashin, director of the Centre for Comprehensive European and International Studies at the Higher School of Economics, reminded. “Obviously, they are aimed at transferring experience and increasing interoperability when confronting a major foreign adversary, which can only be the United States,” he believes. In this sense, Moscow and Beijing are certainly pushing back on the American factor, but it is not the only one. “There is, for example, a factor of concern about stability in Central Asia and the desire to maintain military ties to ensure transparency of mutual trust in defense. In addition, in the course of exercises and exchange of delegations, our and Chinese military get a huge amount of knowledge about each other, and, unlike the United States, our Ministry of Defense does not publish its assessments of Chinese military power. However, they stand high on the level of awareness thanks to such wide connections, it allows them to feel confident, separate myths from reality, understand what capabilities they are actually developing,” the expert adds.

Alexander Yermakov, “Учения и интеграция военных групп: Как Россия и Китай готовятся к защите от НАТО” [Exercises and Military Group Integration: How Russia and China Prepare to Defend Against NATO], *Евразия Эксперт* [Eurasia Expert], October 13, 2021, <https://eurasia.expert/kak-rossiya-i-kitay-gotovyatsya-k-zashchite-ot-nato>.

- The Russo-Chinese military drill “Zapad/Interaction-2021,” held in the Ninxia Hui Autonomous Region in the northern part of the PRC, showed a definitively new stage in the cooperative military preparations for both nations.
- First, Russian soldiers underwent an express course in the use of new Chinese wheeled armored cars: the heavy wheeled infantry ZBL-08 and the ZTL-11 mobile assault gun (in the Chinese classification—the contemporary Western convention refers to them as “Wheeled Tanks.”) Both are comparatively new machines without direct Russian or Soviet predecessors, which would make their introduction especially useful.
- At the present moment, the Russian army has no contemporary armored vehicles, let alone a unified family as the moment demands. The BTR-80/82 is a vehicle with roots in the Cold War, with entirely different goals. This situation should soon begin to change: following a drill in the beginning of the Army-2021 exhibition, the development of the Bumerang family of armored vehicles was announced.
- However, from a political and educational point of view, the most important thing in these drills was achieving a new level of integration in these countries’ military action. A cooperation staff was formed which guided the activity of soldiers through a single guiding information system. Following orders passed through this system, Russian paratroopers and Chinese servicemen carried out landings from Chinese helicopters (admittedly Russian-produced) and seized important objectives held by hypothetical “terrorists”, and the Russian SU-30SM enacted practice bombing runs on orders from the Chinese military.
- Naturally both parties are far from being involved in a military alliance, and they are not working towards one: despite the best attempts of both sides of the Russo-Chinese friendship, the U.S. State Department does not hold the most benevolent policy towards these countries. However the increasingly frequent and complex military drills by both countries, such as the one described here (and for China, this is the first drill with foreign soldiers since the beginning of the pandemic), testifies to the intention of these parties to demonstrate that there is no chance of realizing the fantasies of a gang of analysts from the 1990s about an “inescapable conflict” or “the impossibility of close integration because of their fundamental distrust for one another.”

Chinese Documents on Sino-Russian Military Exercises

“中俄联演 | 演习有何亮点看点?军事专家为你深入解读” [Sino-Russian joint exercise | What are the highlights of the exercise? Military experts give you an in-depth interpretation], *澎湃新闻* [The Paper], August 10, 2021, https://m.thepaper.cn/baijiahao_13973728.

- What are the highlights of the Zapad/Interaction-2021 military exercise? How will the Chinese and Russian military forces carry out joint combat operations? China Media Group reporter Wang Ruitao held an exclusive interview at Qintongxia Contract Tactical Training Base with Li Shuyin, a researcher at the Academy of Military Sciences and expert on Russian military affairs, who was observing the military exercise on site.

- Qingtongxia Training Base is located in the foothills of the Helan Mountains in the Ningxia Hui Autonomous Region. The terrain consists mainly of the Gobi Desert and hilly ground, with an elevation variation that is largely within 30 meters. It could be described as gentle slopes and level ground. It is a training base representative of combat in Gobi Desert and cold plateau conditions. It is suitable for simulating land where terrorists hide and operate. The climate here is similar to Central Asia; both are dry, with little rain. This makes this base highly suitable for training for desert and plateau combat operations such as anti-terrorist operations and special operations.
- Starting with the Peace Mission exercise held by China and Russia in 2005, there have been 16 years of exercises held under the Sino-Russian bilateral framework. The current one, I feel, differs from previous exercises such as the Peace Mission and Joint Sea exercises, in the following areas. First, a change in roles. Instead of a Russian-led strategic exercise which to participate in the Chinese army had to leave Chinese territory, it is an exercise led by China on Chinese territory. The main objective of this exercise is to demonstrate the joint combat characteristics of the Chinese military, particularly the improvements to the joint combat capabilities of our military forces since the national defense and military force reforms. At the same time, this is an effort to create a joint exercise “brand” mainly focused on our military. Second, a change in approach. In previous joint exercises, the Chinese and Russian sides would plan independently and organize independent groups under the same combat plan, largely demonstrating the relatively independent operations of each side under a single combat plan and in the same battlefield environment. This joint exercise, in contrast, has achieved combined planning, mixed formations, and joint training. Third, changes in content. From the perspective of training subjects, there is more joint content, and it is more practical. It presents systemic qualities.
- “Unity” has always been a keyword in Sino-Russian joint exercises. By performing a comparative analysis vis-à-vis the previous few exercises, we can see that there has been further improvement in the level of unity in this exercise. I feel that the way to measure the level of unity in the two countries’ joint exercises is to look at their planning and command. In this exercise, a term that we often use is “combined planning.” First of all, a Russian military command branch center was established under joint command, and we developed a unified, Chinese-Russian bilingual joint information system. By building a Chinese-Russian joint command information system, we can more effectively achieve video and data links and communication with the Russian army, allowing us to share data and situation information, while unifying combat rules and laying a good foundation for joint operations by the two armies.
- This training content enables us to experience the improvement in Chinese military training skills and the new breakthroughs in warfare. There have also been new breakthroughs in joint command combat capabilities. By relying on network information systems, the participating officers and soldiers build command links that operate more smoothly.
- First, this exercise amply embodies the high level of friendly Sino-Russian cooperation and embodies friendship and trust between the two militaries, unconstrained by time or place and unaffected by the pandemic. We know that this exercise was held against a background of a coronavirus pandemic that is continuing to spread and that is becoming more complex. There are many major activities that have been delayed or canceled—yet normalized, institutionalized Sino-Russian joint exercises not only have not been interrupted but are still continuously undergoing quality improvements and innovations. This demonstrates that the comprehensive Sino-Russian strategic collaborative partnership and the friendly relationship between the two militaries are

continuously ascending to higher stages. In addition, this exercise demonstrates to the whole world the firm resolve of the Chinese and Russian militaries to uphold world peace and regional stability. China and Russia have always worked together to construct a fairer, more reasonable international order. As responsible powers, China and Russia are demonstrating to the world their resolve to continue to be defenders and upholders of regional peace and stability, while also providing a fright to those terroristic forces that wait for opportunities to manufacture terror incidents and disturb regional stability—and to the supporters behind such forces.

Jian Feng, “‘营战斗群战术’与中俄军演” [‘Battalion Battle Group Tactics’ and Russian-Chinese Military Exercises], 坦克装甲车辆 [Tanks and Armored Vehicles], September 2021, <https://www.cnki.com.cn/Article/CJFDTOTAL-TKZJ202117006.htm>.

- Military cooperation, including military exercises, is an important part of state relations and is the easiest way for outsiders to observe whether two countries are “allies.” From the participation of the J-20 to the amazingly open weapons interoperability, the concluded China-Russia Zapad/Interaction-2021 strategic exercise presented many new points, highlighting the orderly and in-depth military cooperation between China and Russia in the new era and conveying to the outside world in a highly complex form that “China and Russia are not allies but are better than allies.” However, while the strategic significance of this high-level joint military exercise has been the subject of numerous analytical articles in various media, there are very few voices interpreting it from a purely military operational perspective. In fact, this joint Chinese-Russian military exercise was highly practical. The exercises included joint planning, joint operational synergy, long-range delivery capabilities and military firepower strikes, and integrated joint command systems and joint logistical support capabilities. In particular, the two armies exhibited a greater degree of pragmatism in their participation in each other’s strategic exercises, where they were mixed and where they planned together to test the capabilities of troop reconnaissance, early warnings, and electronic information attacks. This article is a detailed review of the “dry goods” of the Chinese-Russian military exercise, using “battalion tactical group (BTG) tactics” as the starting point.
- Interestingly, in addition to the United States and China, the Russian military is also exploring the construction of similar “synthetic battalions” and is likely to be carrying out battlefield practice in such places as Syria and eastern Ukraine. These practical experiences will be invaluable to the PLA in exploring the tactical use of synthetic battalions and making further adjustments to their construction. Although Chinese forces were invited to participate in Russia’s East 2018, Central 2019, and Caucasus 2020 strategic exercises, this indicates that the cooperation between Russian and Chinese armies in the field of joint exercises has entered a new stage and reached a new level. It also means that the PLA will enter a new level of understanding of Russian “BTG tactics.”
- The tactics of Russian BTGs, which have been refined on the battlefield, are not only evident in past Chinese-Russian joint military exercises but also in some unusual changes in the China-Russia Joint Western 2021 strategic exercise.
- In fact, the China-Russia Joint Western 2021 strategic exercise can be considered, to some extent, as “an experiment in supporting three to four battalion-sized tactical groups with tactical-level fire support and security forces in a high-intensity but limited-purpose battlefield confrontation.” The relevance of this model is precisely that these are the shortcomings of Russian BTG tactics that have been revealed in actual combat.

- Although these new BTGs have demonstrated a relatively high level of combat capability during their involvement in Ukraine and Syria and have changed the stereotypical and conservative image of the Russian military, they are only suitable for the kind of battlefield in East Ukraine that does not emphasize movement warfare, and they are easily defeated on high-intensity battlefields by advanced adversaries like the U.S. military. They are prone to be paralyzed by advanced adversaries like the U.S. Army in high-intensity battlefields by knocking out their nodes. Although our synthetic battalions have significantly surpassed the Russians in terms of weapons and equipment performance and even possess many weapons and equipment that the Russians do not, their digitization and informatization capabilities are close to those of the U.S. military, and their command and combat systems are very similar to those of the U.S. military, [but] it is difficult to verify their tactical rationality because they have not been hardened by combat. Considering that both militaries need to deal with high-intensity ground warfare and even face a common strategic competitor, the China-Russian Joint Western 2021 strategic exercise provides an opportunity for the two militaries to learn from each other's strengths and complement each other's weaknesses.
- Military exercises are the most sensitive activity in the relationship between two countries, and mutual participation in internal strategic exercises is the highest level of military cooperation. In recent years, the PLA has been advancing at a rapid pace that is visible to the naked eye. Synthetic battalions have become the main combat force of the PLA's ground forces, integrating many advantages such as miniaturization, versatility, streamlining, and modularity, [while] highlighting the concepts of information dominance, system support, elite combat, and joint victory.
- However, this new quality of combat capability still requires the lubrication of actual battlefield experience to realize its military competitive value more effectively. That is why it was significant to exchange in-depth tactical "experiences" with the Russian Army through the China-Russia Joint Western 2021 strategic exercise, which is also an excellent reflection of the fact that "there is no limit, no forbidden zone, no upper limit" for Chinese-Russian strategic cooperation.

Russian Documents on Sino-Russian Cooperation in Space and Cyber

Yuri V. Morozov, *Пути нейтрализации угроз России в рамках стратегического тре угольника «РФ—США—КНР»* [Ways to Neutralize Threats to Russia in the Framework of the Strategic Triangle of 'Russia-USA-China'] (Moscow: Institute of Far Eastern Studies of the Russian Academy of Sciences, 2020), 384, https://www.ifes-ras.ru/files/abook_file/book-2020-morozov.pdf.

- Relations between China and Russia in the space industry have intensified sharply in recent years. The two powers have their own rockets and launch sites, are building their own satellites, and are planning an interplanetary expedition, but without joint cooperation, neither Moscow nor Beijing will be able to solve a number of problems.
- The space program has become a top priority for China: its budget and ambition leave no doubt that Beijing intends to significantly strengthen its position in the space industry over the next 10 years.
- The secret of success is large financial injections, persistence, and Russian technology, which helped the Chinese space program to make a significant leap in the 1990s.

- Cooperation between Russia and China in the space industry is based on two documents: an intergovernmental agreement of December 18, 1992, and an interagency agreement of March 25, 1994. Since the early 2000s, the parties have promoted the idea of joint research and use of outer space for peaceful purposes, but for a long time there was no talk about a breakthrough cooperation. The situation began to change in 2014, when after the reunification of Crimea with Russia, the United States vetoed the supply of high-tech products; a ban was also imposed on the electronic component base that was used in satellite construction. The space industry had some reserves, but it was necessary to look for a complete substitute for U.S. products in the short term. A suitable replacement was found in China.
- In 2018, Russia and China discussed the possibility of creating a joint space station. However, N. Eismont of the Institute of Space Research of the Russian Academy of Sciences notes that space exploration cannot be a purely national task. According to him, the Chinese side, which plans to start building a multi-module space station in the next few years, is interested in the Russian experience of long-term space flights and construction of large space objects. In addition, Beijing lacks a number of important technologies and is ready to offer its partnership to Moscow in exchange for them.
- Thus, in a sense, due to the U.S. position, China is in a kind of isolation. For many years now, the United States has been doing everything possible to prevent the development of science and technology in China.
- This is why China is looking for other partners, and the result of this search, to a large extent, is the cooperation that the Russian Federation is developing/offering.
- On the whole, the space sector [of cooperation] was [following] the general trend of development of Russian-Chinese relations, which began to sharply improve after the sanctions against Russia were imposed by Europe and the United States. China is extremely interested in buying Russian RD180 engines, which could be used in Chinese rocket production, while Russia is interested in supplying Chinese space radio-electronics.
- Both sides have shown considerable interest in such cooperation. In summer 2016, the governments of Russia and China signed an agreement on measures to protect technologies in the exploration and use of outer space: in other words, the Chinese side will not be able to engage in unlicensed copying of Russian products. This was the main condition that Moscow put forward for the beginning of substantive negotiations.
- In fact, the logic of this decision is simple: with a huge number of opponents and lack of like-minded people, it is necessary to be friends with China. All the more so because in the conditions of economic recession, when industry funding is constantly being sequestered, it is almost impossible for Russia to implement projects like the lunar or Mars missions on its own. The success of China's space program raises the legal question of whether it will compete with Russia. After all, Russia's position in space is not only one of the undeniable reasons of national pride, but also a significant source of income.
- However, according to V. Kashin, a leading researcher of the Institute of Air Force Development of the Russian Academy of Sciences, the Russians do not consider the Chinese as competitors.
- "There are no concerns about being squeezed out of the commercial launch sector. Production costs in China are already higher than in our country. At the same time, salaries in dollar terms

in the Chinese rocket industry are several times higher. This became especially obvious after the devaluation of the ruble.” A. Ionin, a corresponding member of the Russian Academy of Cosmonautics named after A.A. Tsiolkovsky, believes that the Chinese are simply not interested in the commercial cosmonautics market. “They have too many national tasks, and commercial launches are not the main priority here. China does not need the money.” In addition, China is still under U.S. sanctions, and this prevents it from reaching the most profitable customers from Europe and North America.

Viktoriya A. Denisenko and Nikolay A. Malchushkin, “Перспективы российско-китайского сотрудничества в космической отрасли в 2020-е годы” [Prospects for Russian-Chinese Cooperation in the Space Sector in the 2020s], Благовещенский государственный педагогический университет [Blagoveshchenskii State Pedagogical University], 2020, <https://www.elibrary.ru/item.asp?id=44055870>.

Editor’s Note: This article is not written by leading Russian scholars; however, the authors cover strategic goals and challenges and provide a useful framework for understanding the negative and positive outcomes of Russian-Chinese cooperation in space (or lack thereof).

- Current trends in the world aerospace field allow us to speak about the beginning of a new space race. The key feature of the increased interest in exploration of extraterrestrial spaces is a significant expansion of private sector capabilities in the field of design and launch of transport and manned spacecraft—we are talking primarily about large non-state corporations of this industry (for example, the “Space Exploration Technologies Corporation” of American entrepreneur Elon Musk, “Blue Origin” of American billionaire Jeffrey Bezos, or “Boeing,” the transnational aviation giant).
- For the Russian Federation, maintaining and expanding its existing position in the space industry is one of the highest priorities at the moment. The significance of the issue lies not only in the need for Russia to retain its status as a space power, which it inherited together with the technical potential of the Soviet Union as the legal successor of the latter. The developed world’s close attention to near-Earth space and other planets for the purposes of scientific study and possible militarization determines the desire of Russia to at least prevent a technological lag in space exploration, and at most claim equal participation in the use of extraterrestrial resources. The complicated geopolitical situation that developed in the mid-2010s forces Russia to strengthen cooperation in the space sphere with its strategic partners, among which the People’s Republic of China has traditionally occupied a key position recently.
- For China, which in many ways faces similar foreign policy realities as Russia, space is also of great value. The space program of the “Celestial Empire,” despite its relatively short existence, has already demonstrated significant success in the field of space robotics and communication technologies.
- Consequently, China naturally faces the question of whether it should maintain cooperation with Russia in the aerospace industry.
- China has a significant material and resource base for the implementation of the space program.
- At present, however, China fully covers the technological needs for the design and modernization of the rocket fleet with its own production; development of a reusable spacecraft (the “Shenlong”) is underway.

- External and internal destabilizing factors have no significant impact on the implementation of China's space projects. The COVID-19 epidemic, which began in China in late 2019, has not prevented CASC from conducting four rocket launches since the beginning of 2020. In terms of foreign policy, China's space ambitions also meet little resistance from Western countries, especially the United States, due to the latter's increased attention to Mars exploration. If the current conditions remain unchanged, it is safe to say that China is highly likely to achieve its goals of launching its own space station and landing taikonauts on the lunar surface. As for Russia, the foundation of the Russian space industry was laid during the Soviet Union, and by the beginning of the 2020s, Russia managed to be firmly entrenched in the top three space powers of the world.
- The level of technical development of the Russian space industry meets the requirements for maintaining a position in outer space.
- Turning to the most urgent problems of Russian cosmonautics, we emphasize that in recent years there has been a negative trend towards stagnation in the rate of rocket launches relative to other leading space powers.
- In addition to preserving the number of launches, a significant problem at present is the pronounced costliness of the industry and the corruption of related enterprises.
- Taking into account the growing competition on the part of private U.S. corporations, it is possible that in the future Russian rockets will be unprofitable to operate.
- To determine the prospects for Russian-Chinese cooperation, let us review current joint space arrangements. In September 2019, at a regular meeting of the heads of the governments of Russia and China, Roscosmos CEO Dmitry Rogozin and CNSA head Zhang Kejian agreed to cooperate in the creation of a data center for lunar projects and deep space, as well as in the coordination of the "LunaResource-1" space mission in 2022 and "Chang'e-7" in 2023. A year earlier, there had been talks about bilateral participation in the creation of a Chinese orbital station, and in November 2017, Russian and Chinese state corporations signed a program of cooperation in the space field for 2018–2022. Despite the largely declarative nature of these statements, there is a clear trend towards strengthening the partnership between Russia and China, which is due to the aggressive external environment and long-term cooperation in this industry. What are the possible scenarios for the development of cooperation between Russia and China in the foreseeable future? Despite a declared commitment to a productive dialogue, the rapid technological growth of the Celestial Empire in rocket and space exploration is obvious, and its ambitions to explore other planets and outer space question the necessity of involving other countries, including Russia. An important factor is the role of external powers that also are aiming to maintain a presence in space: the United States and India, which is actively developing its own space program.

Vasily Kashin, "Россия и Китай ответят на создание космических войск США – эксперт," [Russia and China Answer to the Creation of Space Forces by the USA – Expert], *Евразия Эксперт* [Eurasia Expert], September 2020, <https://eurasia.expert/rossiya-i-kitay-otvetyat-na-sozdanie-kosmicheskikh-voysk-ssha/>.

- Outer space has already become a military platform. Space systems are now necessary for a number of key weapon systems, in particular munitions with satellite guidance and unmanned aerial vehicles with long flight times. These weapons systems do not live without space at all, but all the rest also depend on space to some degree. Accordingly, ensuring the operation of the entire

space infrastructure, including space-based communications, positioning, and reconnaissance assets, becomes a priority issue. The development of means to combat space objects is also becoming a priority.

- The United States has lost much of its former military superiority in many other areas, but so far no one can match them in space. Trump's decision to create a separate kind of military force is designed to maximize U.S. superiority and achieve overwhelming dominance in space. Other countries, including China and Russia, will have to respond to it to some degree, and so there will be an arms race in space. The placement of weapons in space will not necessarily come immediately. It may not happen for a long time.
- China is building up its forces very strongly now, and it is the number two power in the world (Russia is number three) in terms of satellite constellations.
- Space is becoming increasingly important precisely because of the development of new types of weapons: drones, satellite-guided precision munitions, and space reconnaissance systems. In the Cold War era, these means were much more primitive and had longer reaction times, but now you have the opportunity to take them to another level. An important factor in the future will be the development of artificial intelligence technologies, which will allow a new level of processing of space reconnaissance data, dramatically increase its effectiveness, and possibly change the approaches to nuclear deterrence.
- Space remains primarily in the military [domain]. All this piloted space flight is ornamentation, while military space operations are on a different scale.
- For prestige reasons, China is promoting the development of science, and we are lagging behind here. We have no resources, and there is only a weak organizational capability. We are able to solve some military tasks, but we cannot compete with China.
- We have cooperation, of course. The golden age was in the 1990s and 2000s, when China's manned program and many other programs rose largely due to Russian technology. Now the Chinese are already sensing their own strength and "advancement," and maybe their need for cooperation with us is no longer so high, although it continues. At the dawn of the crisis and the aggravation of relations with the West in 2014, when we were cut off from the supply of components, there was talk that we would supply new types of powerful rocket engines to China, and that the Chinese would help us establish production of electronic parts and components for space. It is not clear where that went—apparently it hasn't worked out yet, but these are usually long negotiations. We will see more and more closure of these cooperation programs, because the U.S. sanctions pressure on Russia and China is growing. However, cooperation will continue.
- The main goal is to create the information infrastructure that enables the use of weapons on Earth. That is, it is the provision of reconnaissance and positioning resources, without which the effective use of high-precision weapons is impossible. Accordingly, the use of high-precision weapons spurs the development of space systems, and new capabilities of space systems, in turn, lead to new high-precision weapons. In the future, demand will increase further by the development of robotic complexes and systems and the further development of unmanned systems.
- Accordingly, the other side will have an even greater need, first, to interfere with satellite positioning and communication systems and reconnaissance, and second, to be able to shoot down these satellites. This will all develop at an increasing rate for the foreseeable future. An

additional factor that affects the arms race in space is the development of missile defense systems, since ground-based missiles for hitting targets are a side effect of the development of missile defense. They are often just a variant of a missile defense application that sometimes needs some small change in software. And, because, again, missile defense is developing at a high rate in several countries, we will see an increase in the number of threats to satellites and, therefore, attempts to protect them. At some point, we will also see the placement of weapons in space, but that probably won't be the first thing that will happen.

- It is a priority for China to push science forward, because their main field of competition with the United States is in science and technology. Through this, China greatly increases its national prestige, because they are already the second country in the world in the field of space research. Since their investments and potential are growing, they have a chance of someday standing on an equal footing and competing for primacy. In many ways, this reproduces the picture of the Cold War.

Chinese Documents on Sino-Russian Cooperation in Space and Cyber

He Qisong and Ye Nishan, “中国与俄罗斯太空合作分析” [Analysis of Space Cooperation between China and Russia], 俄罗斯研究 [Russian Studies Journal], no. 4 (August 2021), [https://r.cnki.net/kcms/detail/detail.aspx?filename=ELSY202104008&dbcode=CFJD&dbname=CFJDTEMP&v=&uid=WEEvREcwSl-JHSldSdmVpaVVVRWJlOHJDR2xRTjhUUURYdnpJMGPNUp6TT0=\\$9A4hF_YAuvQ5obgVAqNKPCYcE-jKensW4IQMovwHtwkF4VYPoHbKxJw](https://r.cnki.net/kcms/detail/detail.aspx?filename=ELSY202104008&dbcode=CFJD&dbname=CFJDTEMP&v=&uid=WEEvREcwSl-JHSldSdmVpaVVVRWJlOHJDR2xRTjhUUURYdnpJMGPNUp6TT0=$9A4hF_YAuvQ5obgVAqNKPCYcE-jKensW4IQMovwHtwkF4VYPoHbKxJw).

- Against this overall background, bilateral space cooperation has gradually intensified and is a concrete expression of the improvement and upgrading of relations between the two countries. In order to preserve space security, national security, and the stability of the international strategic landscape, China and Russia maintain close cooperation on space diplomacy, the objective being to create an external environment conducive to national development. When it comes to space technology cooperation, geopolitical factors play an important role. The space development dynamics of China and Russia, as well as the U.S. strategy of space hegemony (including space weaponization policies and practices), are the key variables in space technology cooperation between the two sides. The expansion and deepening of China-Russia space cooperation dovetails with the development of political relations between the two countries in response to changes in space geopolitics and also has an impact on the shaping of space geopolitics.
- From an overall perspective, China-Russia space technology cooperation since the end of the Cold War can be roughly divided into two stages, with the Ukraine crisis in 2014 as the dividing line. The first stage was one of shallow cooperation, mainly in the form of a bilateral “buying and selling relationship.” After the Ukraine crisis, space cooperation between the two countries further expanded and deepened, forming a China-Russia space cooperation relationship with space technology, space science, and space equipment intertwined. In 1970, China successfully launched the “Dongfanghong-1” satellite, thus entering the space club. Although this achievement was the result of China’s self-reliance and hard work, it should not be overlooked that China’s move into space also benefited from the assistance of the Soviet Union: China’s launch vehicle technology originated from Soviet assistance in ballistic missile technology, and the Soviet Union trained a number of young scientists and engineers for the development of China’s aerospace endeavors.

- With the resolution of border issues between China and Russia in the 1990s, bilateral relations were gradually improved and enhanced, and space cooperation could be realized. The 1992 agreement on intergovernmental space cooperation between China and Russia and the 1994 cooperation agreement between the space ministries of the two countries were the beginnings of bilateral space cooperation.
- Bilateral space cooperation after the Cold War began in the manned spaceflight field. After China established its manned space program, Russia provided the reference for China’s design of the Shenzhou series of spacecraft. The Russian side not only supplied China with spacesuits but also trained Chinese astronauts and provided technical support for their first spaceflight activities.
- Until 2006, the two countries generally cooperated in three areas: satellites, space science, and basic components. In 2007, the two countries signed a cooperation agreement on the joint exploration of Mars—with the Russian Mars probe “Phobos-Grunt” (Фобос-Грунт) to carry the Chinese probe “Yinghuo-1,” and the Russian space-based observatory to be used for joint deep space exploration—but the project was scrubbed due to the failure of the Russian launch.
- Before 2014, however, China-Russia space technology cooperation still lagged behind the two countries’ political engagement. After the Ukraine crisis in 2014, space cooperation between the two sides entered a new phase in which cooperation not only expanded in breadth but also increased in depth. Cooperation on positioning and navigation satellites was the starting point of the new phase of cooperation between the two countries. The United States and other Western countries imposed sanctions on Russia under the pretext of the Ukraine crisis, including a ban on the export to Russia of satellite-borne electronic equipment, which is precisely one of Russia’s shortcomings.
- During President Putin’s visit to China in 2016, the Russian and Chinese governments signed an agreement on the protection of intellectual property rights in the field of space technology, clearing away legal barriers to the development of in-depth cooperation in space technology between the two countries. In September 2017, the two countries finalized the Outline of China-Russia Space Cooperation for 2018–2022, which includes projects on lunar and deep space development, rocket engine and satellite-borne electronic equipment transactions, etc. This is the first five-year agreement between the two countries. It is within this framework that the two countries have realized the vision of cooperation agreed upon several years ago: the purchase of Russian RD-180 rocket engines by China and the export of satellite electronics to Russia. The two countries also held negotiations in 2018 on the joint production of RD-180 rocket engines. A key point in the implementation of the five-year outline of space cooperation is to take substantial steps in lunar and other deep-space exploration fields. After the United States and other Western countries closed the door to cooperation with it, Russia has clearly strengthened its willingness to engage in lunar exploration with China, looking to make up for its failure to go to the moon during the Cold War era with a successful lunar landing.
- In 2018, the two countries discussed the possibility of cooperation in lunar research and deep space exploration, and in 2019 they signed an agreement to establish a data center for lunar and deep space exploration to share relevant information, including on the moon and Mars. . . . This is a historic agreement.
- China and Russia have also taken important steps in cooperation involving the space security field. If the above-mentioned cooperation in space is limited to the peaceful use of space, cooperation between the two countries in the anti-missile and missile early warning system

fields is cooperation on space security. Following cyber anti-missile exercises in 2016 and 2017, President Putin announced at a meeting of the Valdai Discussion Club in October 2019 that Russia is helping China build a missile early warning system, which will significantly increase China's defense capabilities. Only Russia and the United States currently possess missile early warning systems, which include both space-based and ground-based systems. Russia's assistance on China's construction of a missile early warning system, whether by helping China develop space-based sensors, building ground-based radar systems, or sharing software and information for space-based and ground-based warning systems, will enhance China's anti-missile capabilities and sky monitoring capabilities. In addition, in December 2020, China and Russia extended their agreement on mutual notification of missile launches. Given the U.S. withdrawal from the INF Treaty and the global arms control regime suffering another setback, the continued strengthening of China-Russia cooperation and coordination on mutual notification of ballistic missiles and on-launch vehicles contributes to global strategic stability and security. If in the previous phase of China-Russia space cooperation the two countries only cooperated at a superficial level, the recent phase of space cooperation between the two sides has significantly expanded and deepened. It not only includes the sale of components but has also deepened into cooperation in space technology and space science and further expanded into the field of space security. China-Russia space cooperation has thus taken substantial steps. As China's space technology continues to make strides, large-scale space projects—including the BeiDou system and deep space exploration on the moon and Mars—are advancing steadily and making great achievements, while Russia is under sanctions from the United States and other Western countries and its space budget is restricted. This has affected the progress of space projects, making Russia change its past “strong” posture and negotiate with China on an equal footing, which in turn reflects the win-win nature of cooperation.

- While one can say that the above China-Russia space technology cooperation is divided into two phases, before and after [the 2014 Ukraine crisis], space diplomacy cooperation between the two countries has maintained a close posture ever since the end of the Cold War, because space is tightly linked to international security and national security. As is well known, the advent of the space age was closely tied to the U.S.-Soviet nuclear arms race. Space is the “eyes and ears” of strategic nuclear forces and is an extremely important aid in strategic deterrence. With the development of space technology, satellites not only became information platforms that provide services and facilitation for military operations—such as communications, weather, and navigation—but also firepower platforms or firepower delivery platforms. As a result, satellites became military force “multipliers” and “enablers,” and a space dominance doctrine also emerged.
- Under circumstances where diplomatic efforts were unable to curb the U.S. weaponization of space, some countries had to take countermeasures, developing and stockpiling anti-satellite weapons, and thus opening the curtain on a new round of the space arms race. Space-based and ground-based kinetic anti-satellite weapons, directed energy anti-satellite weapons, and cyber and radio frequency anti-satellite weapons have emerged or will soon emerge. Given the irreplaceable role of space and its technologies for economic and social development, the weaponization of space not only threatens the safety of satellites operating in orbit but also has serious negative effects on economic development and social welfare. Furthermore, the increasingly close integration of space with the command and control systems of a country's military leads to potentially huge threats to national security. More importantly, the integration of space and

nuclear strategic forces, along with the weaponization of space, can have serious and potentially disruptive effects on international strategic balance and stability. In short, the weaponization of space is a threat to world peace and can also cause enormous damage to economic development and social welfare. To strengthen national security and promote economic development, as well as to maintain international security, China and Russia cooperate with each other in summit diplomacy and in multilateral processes, taking practical actions to prevent the arms race in space and the weaponization of space.

- When the United States moved to implement theater missile defense systems and a national missile defense system, China and Russia judged that the United States was likely to withdraw from the ABM Treaty, and therefore called on the United States to comply with it. The November 1998 Joint Statement on Sino-Russian Relations at the Turn of the Century, the December 1999 Sino-Russian Joint Statement, and the July 2000 Joint Statement on Anti-Ballistic Missile Issues all emphasized that the ABM Treaty is a cornerstone of international strategic stability, and that the U.S. development of a national missile defense system and construction of ABM systems would have destructive effects.
- More importantly, the United States has not only expanded its ABM system in spite of the international community's opposition, but it has also deployed the "Shore-based Aegis" system and the "SAD" system in Europe and Asia, and further developed and stockpiled space weapons, sharply increasing the threat that space will be weaponized and turned into a zone of military confrontation.
- In June 2019, the heads of state of China and Russia once again expressed their concerns and worries. Calling on all countries to work to ban the weaponization of space, they said that U.S. withdrawal from the INF Treaty undermines strategic stability and triggers an arms race; the U.S. withdrawal from the ABM Treaty, and especially "the development of its strategic anti-missile systems, and its plans to deploy them in different regions of the world and in space, continue to have serious negative repercussions for international and regional strategic balance, and security stability," and "the real prospect of an arms race in space, and its evolution into a frontier of military conflict, threaten strategic stability."
- In fact, the originator of the weaponization of space in the post-Cold War era was the United States, and the goal of preventing an arms race in space and controlling space armaments can only be truly achieved by reaching a legally binding international treaty with the United States prohibiting the weaponization of space.
- Bilateral relations have made a qualitative leap, and a new type of Sino relations has been established that is "non-Russian aligned, nonconfrontational, and not targeted at third parties," and political friendship and trust have laid a firm foundation for in-depth cooperation between the two countries in various fields. China-Russia space technology cooperation is the result of the deepening development of relations between China and Russia, whether that cooperation is in space equipment (e.g., rockets, satellite-borne electronics), joint technology research (e.g., space materials), data cooperation (e.g., deep space exploration information), or technical and policy cooperation involving space security. It is a concrete manifestation of the close relationship between the two countries. The expansion and deepening of once nonexistent space cooperation between the two countries also resulted from the respective space development dynamics of China and Russia, while the United States has been a key variable as well.
- In particular, at times of great achievements in China's manned spaceflight, BeiDou system, and lunar exploration projects, or when they were about to make great achievements or afterwards, Russia

significantly slowed down the process of space cooperation with China. “This kind of cooperation was modest in scale in the late 1990s and early 2000s, and this momentum has waned since then.”

- The difficulty in advancing such cooperation lay partly in the fact that Russia and China had yet to sign an agreement on the protection of intellectual property rights in space fields, but the real reason was that Russia considered itself technologically advanced in space and feared that “serious” cooperation with China would develop China into a competitor.
- As is well known, launch vehicle engines are indeed the core technical components of missiles. Russia banned the export of RD-180 rocket engines to China on the grounds that doing so would violate the Missile Technology Control Regime. Russia let the engines be sold to the United States, however, and even after being subjected to U.S. sanctions, it did not use the mechanism mentioned above to initiate counter-sanctions. This once again showed that Russia did not want to promote the improvement of Chinese space technology through cooperation and turn China into a competitor. On the one hand, in the first phase Russia generally considered its space technology superior to China’s, so cooperation in space was a “gift” to China. On the other hand, with the development of Chinese space technology, including manned spaceflight, Russia was wary of cooperation because it feared that China would overtake it.
- In addition to the existence of a significant portion of pro-Western forces within Russia and the sowing of discord between Russia and China by the United States and the West, from a power transfer point of view, Russia’s decline from Soviet-era superpower to one of the world’s top powers resulted in a significant psychological disconnect, and feelings about China’s rise were complicated. Therefore, in the first phase of China-Russia space cooperation, Russia did not have a sincere desire to cooperate with China. At that time, Russia preferred to cooperate with the West.
- Moreover, although Russia extended an olive branch of space cooperation to China to promote Sino-Russian relations and alleviate the strategic pressure exerted on it by the United States, the European Union, and NATO, it feared that cooperation between the two countries would promote China’s technological progress in space, thereby diminishing its voice in Sino-Russian relations.
- Because of the technological gap, the degree of Russian-Chinese space cooperation was not as high as Russian-U.S. space cooperation, so Russian-Chinese space cooperation was limited to a buying and selling relationship for some time. More importantly, Russia’s fear that China’s rise would impinge upon its political and economic interests led to further conservatism in China-Russia cooperation in science and technology.
- The crisis in Ukraine—and especially the annexation of Crimea by Russia—led the West to impose tougher sanctions on Russia, once again demonstrating that the West fundamentally distrusts Russia and still sees Russia as a security threat, especially with Biden having called Putin a “killer.”
- Under the influence of Western sanctions and the COVID-19 pandemic, the lack of funding for the development of Russia’s space industry and the aging and loss of S&T personnel—including in the space field—have combined to further slow the development of Russia’s space technology and industry, and there are even difficulties in maintaining satellite ground facilities.
- At the same time, development of China’s space industry has been rapid, especially in the twenty-first century, and China’s space technology has become increasingly sophisticated.
- The development of China’s space technology and industry and the advancement of its space program have propelled China’s rapid space power development. Russia’s space technology,

industry, and program have progressed more slowly, and the pace of its development has been far below China's. China's leap in space technology has led to a relatively substantial reduction in Russia's overall space advantage, and its sense of superiority has fallen along with it. While Russia still has certain advantages, by expanding and deepening cooperation with China and mutually complementing advantages with China in the fields of deep space exploration and navigation satellites Russia can exchange its advantages for technologies and equipment it does not have, based on the principle of reciprocity. Therefore, Russia decided to cooperate in the field of positioning and navigation satellites, which was a breakthrough in space cooperation with China. In this second stage, Russia is cooperating with China in space technology on an equal footing, with almost no sense of superiority, and it has provided China with missile early warning system technology while China has given Russia corresponding assistance in space technology.

- Nevertheless, in the process of China-Russia space cooperation, there are three aspects that indeed surpass the geopolitical considerations between China and Russia, and this is beyond doubt. First, China-Russia space cooperation promotes the development of space technology in both countries and plays an important role in forming a stable China-U.S.-Russia triangular relationship in space, which is in the interests of both countries. . . . Secondly, the two countries' close cooperation on launch vehicle engines and global navigation systems, and their commitment to cooperation on an international lunar station, etc., will not only contribute to the joint progress of Russian and Chinese space technology but will also help in building strategic stability and a balanced landscape in space, in making space a common heritage of all mankind, and in striving to put into practice the principles and purposes of the peaceful uses of space as established in the preamble and Article I of the Outer Space Treaty. And thirdly, space cooperation between the two countries will be conducive to the development of the space production chains of both sides.
- At the same time, they can also give full play to their comparative advantages in the space field, expand and extend production chains, form a new division of labor system, drive the development of technology overall, and enhance their ability to resist Western sanctions.
- Space cooperation between China and Russia has enhanced mutual political trust between the two countries and further deepened their strategic partnership.
- Cooperation between the two countries on space diplomacy will further consolidate and deepen the strategic partnership. China and Russia alike face strategic pressure from U.S. antimissile systems and space weapons, and the two countries have cooperated with each other at the United Nations, the UN Committee on the Peaceful Uses of Outer Space, and the Conference on Disarmament, making ceaseless efforts to prevent an arms race in space and contribute to the maintenance of global strategic stability, as well as making arduous efforts to build a fair and just space governance system.
- China-Russia space cooperation is the result of space geopolitics, and space cooperation between the two countries will likewise reshape space geopolitics. It will contribute to the relative stability of the space order, specifically by contributing to the multipolarity of space; prevent celestial bodies such as the moon from being enclosed by the United States and other countries; and prevent the weaponization of space, which will have an important impact on the formation of the future rules of space governance and the shaping of the future space landscape. The key to maintaining a multipolar space hinges on a relatively stable China-U.S.-Russia space triangle.

- However, with the outbreak of the [2014] crisis in Ukraine, and especially since the Trump administration took office, the space landscape has taken on an asymmetrical character, with an almost entirely one-sided tilt toward the United States.
- This trend is detrimental to the stability of the space landscape. With the expansion and deepening of China-Russia space cooperation, there is bound to be rapid development of mutual cooperation between their research institutes and enterprises, whether in state-led space projects or in commercial space projects, and the number of state-owned satellites and commercial satellite constellations launched by the two countries will certainly increase a great deal, narrowing the gap with the United States.
- In view of the attempts of the United States and other Western countries to seek sovereignty over celestial bodies under the pretext of deep space exploration and planetary resource development, China and Russia have repeatedly signed agreements on deep space exploration of the moon and other celestial bodies, jointly exploring and landing on the moon, establishing their own lunar bases, and setting up a joint lunar research station open to the world. This indicates to the world that any attempt by any country to use advanced technology to enclose the moon and Mars will be strongly opposed by China and Russia, which are determined to preserve the status and properties of the moon and other celestial bodies as a global commons and the common heritage of all mankind.
- The weaponization of space by the United States and its allies in NATO and elsewhere is undoubtedly causing damage to the peaceful use of space, as well as to global strategic stability and balance.
- In fact, China and Russia possess some degree of antisatellite capability, and they have held joint cyber anti-missile exercises as a direct response to the United States' weaponization of space and refusal to conclude an international treaty banning the weaponization of space. Although the two countries' space cooperation does not directly involve anti-satellite content, cooperation in the field of space technology, which is dual-use technology, has a strong connotations of a military alliance in space.
- In addition, President Putin announced in 2019 that Russia is helping China build a missile early warning system. This was a strong signal that the two countries are cooperating substantively in the military space field, enhancing the defense partnership between Russia and China, and potentially forming a joint Sino-Russian anti-missile system. The possibility of Russia exporting to China S-500 anti-missile systems with anti-space weapon capabilities in the event of a deteriorating space situation is not ruled out, nor is the possibility of China-Russia cooperation in anti-space technology. According to U.S. reports, China and Russia have different anti-missile capabilities and technologies, with Russia's space-based co-orbital "nesting doll" anti-satellite technology and China's mid-range anti-missile technology and antisatellite technology each having its own advantages. Cooperation between China and Russia on anti-satellite technology could be a nightmare for U.S. satellites. Until there is a treaty banning the weaponization of space, China-Russia space cooperation, especially military cooperation in space, is a strong cornerstone for preventing space from being weaponized and turned into a battlefield. The highly developed Sino-Russian military relationship is a key factor in promoting global strategic stability, and it has played an important role in maintaining global and regional stability.
- With the imbalance in Chinese, U.S., and Russian space power, neither China nor Russia alone can stop the United States from pursuing its stated strategies and policies.

- China-Russia space cooperation, especially the establishment of a joint lunar research station, is a concrete attempt to implement the concept of global governance of “negotiation, joint construction, and sharing” and to build a community of human destiny in space, and it is also a way for China to provide Chinese solutions and Chinese wisdom for changing space governance. As to whether the above goals can be achieved, or whether there will be one pole in space led by the United States and another pole with China and Russia jointly, depends to some extent on Russia.

Russian Documents on Sino-Russian Understandings of Hybrid Warfare

Alexandr Bartosh, “Китай и Россию сближает угроза гибридной войны: Медведь и панда на службе миру” [China and Russia Are Brought Closer by the Threat of a Hybrid War: Bear and Panda in the Service of the World], *Военно-промышленный Курьер* [Military-Industrial Courier], October 22, 2019, <https://vpk-news.ru/articles/53176>.

- The correlation between the concepts of “cultural focus” and “strategic culture” is an important subject for another study. Let me merely point out the closeness of the cultural focuses of Russia and China, which reflects the general interest of the two powers in defense projects and the prevention of a major military conflict. An important step in strengthening the strategic partnership was the decision of the Russian Federation to deploy a Missile Defense Alarm System (MIDAS) in the PRC. Until now, only the United States and Russia had such a system. Now, China will join them. The decision testifies to the real depth of Russian-Chinese strategic cooperation and the degree of trust between Moscow and Beijing. The latter will have at its disposal a complex of special technical means for detecting ballistic missiles, calculating their trajectory, and transmitting information to the command center, which is then reported as an attack on the state with the use of missile weapons, prompting an urgent decision on the response. There are also other steps to deepen the relations, particularly in terms of the development of measures to counter any hybrid aggression from the United States and the West as a whole, which may aim at both our countries. In this context, it would be interesting to study the approaches of Russia and China to confronting a hybrid war and a “color revolution.”
- The opinions of authoritative Russian experts on hybrid warfare can be summarized as follows: the term is of Western origin. The theory of hybrid warfare, which was developed in the West, is now being tested all over the world. Its essence lies in the complex use of hard and soft power tools, in erasing the differences between war and peace, which is an important feature of the conflicts of the twenty-first century. . . . Hybrid warfare is characterized by high adaptability to the conditions in which it is prepared and conducted; a continuity and connection with “color revolutions”; and multidimensional struggle in the military, informational, economic, political, socio-cultural, and other fields.
- According to the chief of the General Staff of the Armed Forces of the Russian Federation, General of the Army Valery Gerasimov. . . . Our response is based on active defense, which relies on theoretical studies and substantiation of a set of measures primarily aimed at the preventive neutralization of threats.
- Today, the type of interstate confrontation studied by Sun Tzu is what we call “hybrid warfare.” The Chinese strategist formulated its conceptual essence: to achieve victory over the enemy without fighting it, by avoiding direct military clashes with enemy armies. He argued that the best war is waged

this way: first, by breaking the plans of the enemy; second, by breaking their alliances; and only then, by breaking their troops. For millennia, the essence of Chinese technologies to “live and survive” has been the desire to achieve the necessary results with as little effort and material costs as possible.

- The technologies of the “color revolution” that Sun Tzu spoke about naturally interact with the hybrid warfare strategy. According to his plan, the main objective of a geopolitical attack during wars should, in fact, be the ruling elite of the enemy state—the ruler himself, his inner circle, and the military leaders, who must be actively influenced by various means—so as to “outplay them with a plan” and thus “prevent them from winning.” Geopolitical adversaries are trying to assign the authorship of the hybrid warfare strategy to Russia and China, arguing that today the all-encompassing integral strategy of geopolitical struggle—hybrid warfare and “color revolution”—are used by China in its competitive struggle with the United States.
- Nonetheless, it is the United States and its satellites that have long been trying to break up Russia and China, relying on the “fifth column” and other subversive technologies.
- Confrontation in the public mind is an important element of hybrid warfare.
- With the support of the armed forces, attack and defense are carried out in areas such as social media-based public opinion, electronic means of dissemination of information, psychology, and cyberattacks. Overwhelming advantage is then achieved through the use of a large number of precision weapons in military operations.
- Thus, the assessments of hybrid warfare strategies made by Russian and Chinese experts are very similar. From a political point of view, it is important to have a common understanding that the initiators of hybrid warfare and “color revolutions” against geopolitical competitors have been invariably the United States and Western countries. Any recognition of a single source of threats to the national security of Russia and China should serve as a unifying factor in developing a strategy for joint countermeasures.
- To summarize, we should note that, for Russia’s relations with China in the context of the geopolitical confrontation with the United States and the West, it seems to be extremely important that we take into account one of the distinguishing features of the Chinese logic of thinking, which has shaped its national strategic culture. Its essence is that “a unity may split in two forces, but changes would follow through a combination of not two but three forces.” Thus, by the Chinese logic, one has to find and attract a third force in the face of a clear confrontation between two sides.
- It is unlikely that, in today’s uncertain and chaotic international environment and in the face of its deteriorating relations with the United States, China would be interested in weakening Russia. Rather, on the contrary, an important factor in ensuring the national security of both states should be their mutual interest in each state’s stable and sustainable development. The stakes in the geopolitical confrontation between the three powers are extremely high, and we should not rule out the possibility that the United States may initiate sophisticated maneuvers to split the partnership between Moscow and Beijing. The objective of Russian politicians, diplomats, and the military should be to find a worthy response.

Viktor Murakhovskiy, “Безопасность страны как фундамент развития” [National Security as a Foundation for National Development, interview with Andrei Ilnitsky], *Арсенал Отечества* [Homeland’s Arsenal Journal] 51, no. 1 (March 30, 2021), <https://arsenal-otechestva.ru/article/1414-bezopasnost-strany-kak-fundament-razvitiya>.

- However, under the influence of various currents of Western ideology, Russian society distressingly and increasingly crumbled from within. Today, we can see that part of both the Russian elite and society is ready to lean on currently fashionable Western ideological trends and lifestyles. Americans do not differentiate between informational, psychological, cyber operations, and electronic warfare, considering them as an equitable domain of a joint battle space in multidomain operations along with space, air, land, and water.
- The West, led by the United States, has unleashed an information-hybrid war against Russia. Its task is to overstrain Russia, to knock us off our targets, to unbalance the situation.
- All this creates a new type of warfare. While in a classical war, the goal is to destroy the opponent's manpower, in today's cyberwars, the goal is to destroy the opponent's infrastructure. In fact, the goal of the new warfare is to destroy the opponent's identity and to change the mental and civilizational basis of the opponent's society. I would call this type of warfare mental. Furthermore, if the manpower and infrastructure can at least be restored, the evolution of identity is an irreversible process, especially if the consequences of such mental warfare emerge only gradually—and only by skipping at least a generation, when it is too late to do anything.
- And the main weapon here is the World Wide Web; so, whoever owns it and provides its content has a strategic advantage. Unfortunately, we must admit that in this case the advantage is not ours.
- Taking into account the merging of manipulative and cyber-strike means, followed by their gradual legalization as tools of influence against competitors and potential adversaries during peacetime, we urgently need to clarify the role that the Russian Armed Forces should play in such a setting.
- Digital platforms and artificial intelligence technologies can also be actively used in the desovereignization of Russia by creating gaps in national security.
- Experts know that, in the information war, there is only one tactic for victory—an offensive. So, to repel any aggressive attacks on our country, we should bring down the opponent's agenda and seize the initiative. Now, should we then completely break off the cooperation with the West?
- Of course, no! We need a dialogue. The dialogue should not be just for the sake of a dialogue but from the platform of national interests, an example of which Putin gave at the Davos Club when he outlined our vision of the ways and scenarios of world development. I think and hope that, in the near future, “red lines” will be drawn on the geopolitical field, with the mapping of the landmarks of Russia's national interests, which no one will be allowed to cross.
- Here are just a few of the most important countermeasures: Internet sovereignty [and] strict blocking of the activities of foreign social media for spreading any information about unauthorized rallies and for any provocation of a protest.
- The West, led by the United States, avoids a direct military confrontation with Russia, as Russia is capable of inflicting unacceptable damage on them. The concept of a rapid global strike and the U.S. National Defense Strategy frankly states that the “hot war” should be preceded or completely replaced by the so-called proxy or hybrid war.
- If Russia “does not change the minds” of our opponents, does not counteract or frustrate the aggressive plans of the United States and NATO, it will lose the initiative and be forced to maintain a passive defense in extremely unfavorable conditions. Inaction actually dooms our country to existence under the agenda imposed by Americans and their agents of influence. And this categorically does not correspond to Russia's sovereign choice. Unfortunately, in Russia,

the expert analytical support of the national security policy is far from optimal. We have not yet created an effective system corresponding to the new hybrid challenges. And the existing institutional and semantic field is broken down by departments and disciplines, which has left it unbalanced. We do not have an integrative center for development and decision making in national security, and we haven't established a network of expert analytical institutions (think tanks) working and competing under a common government strategy.

Alexandr Bartosh, “Стратегии сдерживания и принуждения как инструменты дипломатии XXI века” [Deterrence and Coercion Strategies as Instruments of 21st Century Diplomacy], Научно-исследовательский центр проблем национальной безопасности [Scientific Research Center for Problems of National Security], April 2022, <https://nic-pnb.ru/analytics/strategii-sderzhvaniya-i-prinuzhdeniya-kak-instrumenty-diplomatii-xxi-veka/>.

- The main task is to take measures to protect the space of our vital interests, primarily in the territories of our neighbors, many of which have been turned into theaters of a hybrid war against Russia. It is necessary to develop a strategy for a long-term confrontation in each direction, to look for a strong ally-partner to counter, who is ready to make a significant contribution to the implementation of a long-term strategy for joint struggle.
- Under these conditions, an important place should be given to maintaining, improving, and building up our intelligence potential, along with its mining and analytical structures, which are capable of carrying out systematic work to preempt enemy actions with the timely detection of non-traditional threats and the preparation of operational recommendations for their neutralization. The potential of forces and means of counterintelligence, special information structures, a well-established mechanism of military-civilian interaction and means of territorial defense should be able to guarantee the internal security of the entire country.
- It is important to consider that the sources of advantage on the battlefield will shift from traditional factors, such as the size of forces and the level of weapons, to factors such as increased efficiency in obtaining and processing intelligence information based on modern forces and means as well as the computing power used in analysis, ensuring the security of strategic management systems.

Alexandr Bartosh, “Разведка России в противостоянии гибридным угрозам” [The Role of Russian Intelligence in Countering Hybrid Wars], Независимое Военное Обозрение [Independent Military Digest], June 2017, https://nvo.ng.ru/nvo/2017-10-06/1_968_scouting.html.

- Together with the CSTO, CIS, and SCO allies, we should take steps to update and coordinate our capabilities of implementing preventive strategic communication and optimize our use of monitoring to counter hybrid threats, including any indicators that enable quick predictions and recognition of any threatening situations in the administrative, political, socio-economic and cultural, and ideological areas. A priority area of our joint activities together with the CSTO, the CIS, and the SCO should be to ensure our ability to reveal and fend off any threats of color revolutions in a timely fashion and to work ahead of the curve. To this end, within the framework of our joint strategy, we should develop plans to prepare for repelling any threat, introduce information exchange methods for allies and partners, and take joint steps to combat the financing of color revolutions. We should submit this as a priority project: adapting the defense capabilities of Russia, the CSTO, the CIS, and the SCO, and ensuring a response to any hybrid threats against any of the countries or coalitions. We should explore military responses to

hybrid threats by developing an appropriate regulatory framework through dialog, strengthened cooperation, and coordination in terms of situational awareness, strategic communications, cybersecurity, crisis prevention, and response to countering hybrid threats.

Alexandr Bartosh, “Стратегии сдерживания и принуждения как инструменты дипломатии XXI века” [Deterrence and Coercion Strategies as Instruments of 21st Century Diplomacy], Научно-исследовательский центр проблем национальной безопасности [Scientific Research Center for Problems of National Security], April 2022, <https://nic-pnb.ru/analytics/strategii-sderzhvaniya-i-prinuzhdeniya-kak-instrumenty-diplomatii-xxi-veka/>.

- As for Russian–Chinese relations, we can attest to the advancement in their bilateral and multilateral interactions. Russia and China have developed a working mechanism for cooperation in the fields of information technology and cybersecurity. Their main working areas are: activities of the Russian–Chinese Subcommittee on Communications and Information Technologies (these concern the diversification of high-tech technology supply channels, including data storage systems and telecommunication equipment; the strengthening of network security; the improvement of management efficiency; and the development of the global information space); . . . interactions within the UN, SCO, and BRICS; . . . cooperation between the defense departments of the Russian Federation and China; . . . [and] dialogs and interactions among experts. . . . An important element in this mechanism has been the Russian–Chinese Agreement on Cooperation in the Field of Ensuring International Information Security, signed in May 2015, which defines the areas of interaction in the information and digital areas. According to the document, countries will jointly respond to the most acute threats to international information security, while opposing any uses of information and communication technologies that may assist in any terrorist acts and/or interfere with internal affairs, undermine sovereignty or political stability, or incite ethnic or religious hatred, etc. This agreement has been of fundamental importance for the countries’ bilateral relations, despite its framework nature.
- Meanwhile, the process of solving any practical issues of cybersecurity, even within the SCO framework, has been quite complicated and confusing, despite the continual contacts and the existing agreement on cooperation between the countries. Cyber incidents have happened even between full members of the Organization.
- The need to extend confidence-building measures to cyberspace are also dictated by the current state of affairs within the SCO, the RIC, and in the areas where the interests of the Eurasian countries, trying to build a new type of relations, generally intersect. However, achieving mutual trust in cyberspace has been one of the most difficult problems.
- Nonetheless, there has been some progress in this direction. The defense departments of the Russian Federation and China have taken certain practical measures. These include, for example, staff network exercises. In December 2017, Russia and China held their second joint computer-aided command-and-staff missile defense exercise, Aerospace Security 2017. The first such exercises were held in May 2016 by the Central Research Institute of the Aerospace Defense Troops of the Russian Ministry of Defense. And in the summer of 2017, information appeared in the media about the study of technical capabilities for creating a joint Russian–Chinese technological platform for repelling cyber threats and reducing risks in the information space.
- Nonetheless, there has been a serious breakthrough in Russian–Chinese relations. Today, the partners have created favorable conditions for further thematic dialogs through diplomatic, military,

and other channels, and for exchanging information and communication technology products. All this may contribute to the creation in the future of a special platform that would prevent any threat of risks in cyberspace. The sphere of information and digital interaction between the parties has been gradually expanding. It involves the participation in the global management of the information environment, while observing one's own interests and understanding that one's partner has similar aspirations. The countries have also been working on creating the conditions for cooperation in the technological sphere and in the development and creation of modern technical means for counteracting and repelling cyber threats. Thus, despite the extreme complexity and inconsistency of the international conditions, Russia and China have managed to build positive cooperative interactions in the digital sphere and to accumulate constructive experiences.

Chinese Documents on Sino-Russian Understandings of Hybrid Warfare

Han Aiyong, “大国地缘政治竞争的新嬗变——以混合战争和灰色地带为例” [The New Transmutation of Geopolitical Competition among Great Powers – The Example of Hybrid Warfare and Gray Areas], 教学与研究[Teaching and Research Journal] (2022, original version 2019), [https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDAUTO&filename=JWDP202202007&uniplatform=NZ-KPT&v=3MS-QjXg\]kovg5Q1qPJFO3h9QxNKcB19h2DLL700IifsqYgM_fNQRgPIzC4QN3df](https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDAUTO&filename=JWDP202202007&uniplatform=NZ-KPT&v=3MS-QjXg]kovg5Q1qPJFO3h9QxNKcB19h2DLL700IifsqYgM_fNQRgPIzC4QN3df).

- In terms of targeting, hybrid warfare does not seek a head-to-head conflict between the great powers, but rather focuses on how to win hearts and minds. More specifically, U.S. hybrid warfare serves the need to preserve global hegemony, and its logic is offensive and globalist. Russian hybrid warfare, on the other hand, is used to restore Russia's glory as a Eurasian power, and its logic is defensive and Eurasian. Both point to two key fringes: strategic pivot countries and the periphery of the great powers. The competition for strategic pivot states is intended to maintain and expand the international political influence of the great powers.
- It can be seen that hybrid warfare has a distinct political attribute of serving the needs of great power competition; that is, it does not seek head-to-head confrontation between the great powers, but rather acquires geopolitical advantages by means of proxy wars or proxy destruction.
- As a means of great power competition, the impact of hybrid warfare on the competitive process is extremely obvious. First, the violent nature of hybrid warfare and the competition for the peripheral zones of the great powers and strategic pivot areas are making indirect low-intensity conflicts between the great powers a reality. Second, the combined use of various instruments in hybrid warfare has forced the great powers to pay more attention to the way they use their forces and their composition while strengthening their armed forces. Third, the competitive logic of hybrid warfare is to create a “controllable” chaos or crisis and then to shape a favorable strategic posture by rebuilding peace and restoring order. This suggests that the ability to respond to major international crises and national governance has become a key element of great power competition.
- The U.S. National Security Advisory Council summarizes gray-zone tactics into 10 categories: cyber and information warfare, covert operations, special forces, support for insurgent or terrorist activities, financing of nongovernmental actors, assistance to irregular forces, economic pressure, manipulation and undermining of democratic institutions, deliberate ambiguous actions, and explicit or implicit threats of force.

- The most basic connotation of hybrid warfare also refers to the combined use of various means of destruction. The second aspect is the combined use of unconventional and conventional tools. A common tactic in gray-zone competition is the use of historical narratives, civilian intervention, *fait accompli*, psychological warfare, legal warfare, and other unconventional tools, which are coordinated with conventional tools such as alliance building, forward force presence, economic sanctions, and support for opposition forces to form a combined competitive force.
- The geographic areas where great powers engage in geopolitical competition are usually on the periphery of another great power—that is, the strategic pivot areas and the periphery of the great powers—and in this respect, hybrid warfare, gray zones, and traditional great power competition are not dissimilar. The new twist, however, is that the great powers are increasingly focused on using “color revolutions,” cyberattacks, and narrative reshaping to induce changes within their rivals in their favor. For example, the “color revolution” as a hybrid warfare tandem configuration is an effort to magnify a certain imbalance in the field of economic and social development within the competitor country, support internal opposition and its base of activity—the fifth column, agents of foreign powers, and other forces—to create, when complemented by external forces, systemic crisis events within the competitor country. . . . This then creates the conditions for the use of coercive means to eventually destroy the legitimacy of the government’s actions or even overthrow it. This suggests a shift in the focus of the strategy of the great powers on the periphery of competition toward internal governance and the winning of hearts and minds.
- The rise of hybrid warfare and gray zones also poses new challenges and requirements for building national capacity to respond to international crises. Russia’s hybrid warfare strategy in the Ukraine crisis has put NATO’s proudly strong response mechanism into widespread question and caused NATO to be highly alarmed. This suggests that strong military forces alone cannot effectively respond to new crisis patterns and that maximizing the effectiveness of force use depends not only on the force itself but also on the coordination between force components to create maximum synergy.
- The new transmutation of geopolitical competition among the great powers has brought inspiration to China. It shows that the means of competition are becoming more integrated, the process of competition is becoming increasingly blurred, and although the focus of competition revolves around the international order, the essence of competition is a struggle over the strength and weakness of national governance capacity. This has at least three implications for China’s response to the increasingly fierce geopolitical competition among the great powers.
- *One is to adhere to multilateralism and to mosaic international behavior and international interests in multilateral mechanisms as much as possible. . . .* At the regional level, China can reduce the concerns of its neighbors about China’s rise by embedding its international behavior and international interests in multilateral mechanisms and by using the construction and smooth operation of these mechanisms to realize its own preferences.
- *Second, it is necessary to establish a systemic concept to deal with the geopolitical competition among the great powers. . . .* As China’s power grows and its international influence expands, it is especially important to fully estimate the possible international and regional spillover effects of domestic policies and to have the necessary response plans. In terms of timing, it is important to integrate current and future interests, to look to the future, and to reserve sufficient space for rules of action after national rejuvenation. In terms of concrete operations, while focusing on building hard and soft power it is also necessary to pay more attention to the organization and structure of

forces and the coordinated use of various forces, so that they can demonstrate more flexible and coordinated response capabilities when dealing with emergencies.

- *Third, the fundamental strategy to deal with the geopolitical competition among the great powers lies in “doing our own thing.”* Although geopolitical competition among the great powers is an international phenomenon, it is fundamentally a competition between the strengths and weaknesses of internal governance capabilities of states. This is evident from the use of hybrid warfare and gray zones as a means of competition, focusing on creating psychological and physical chaos within competitors to gain a competitive advantage.

Wang Chensheng, “中俄协作网络空间治理的基础与路径分析” [Reflections on the Joint Prevention of ‘Color Revolutions’ in Russia and China], 欧亚人文研究 [Eurasian Humanities Studies] (2022), <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2018&filename=GJXW201709003&uniplat-form=NZKPT&v=V0yhs0kF2yR6m7NtNJ8x6olg8boCzDGn9OJzWTj12gJNBqsY0Q9OTWkDeCwMHxtX>.

- The term “color revolutions” originally referred specifically to the regime changes that occurred in CIS countries at the beginning of the twenty-first century. In the countries where “color revolutions” occurred, the opposition, with the support of Western countries, took advantage of the presidential and parliamentary elections to demonstrate against the government, using flowers, patterns, or clothing of a certain color as symbols in order to force the government leaders to step down and establish a pro-Western regime based on Western values.
- It should be said that the “color revolutions” around the peripheral regions of Russia and China are only “pre-game warm-ups,” and that Russia and China are the ultimate targets of the “color revolutions” carried out by the United States and other Western countries.
- In recent years, as the United States and other Western countries have successfully implemented “color revolutions” in Central Asia and other regions, the circle of “color revolutions” against China and Russia has been quietly tightened. While actively promoting it externally, the United States and other Western countries are also trying to find a breakthrough in China and Russia, frequently meddling in the internal affairs of the two countries and staging despicable plays to subvert legitimate regimes in China and Russia. In addition, Biden has issued several tough statements against China and Russia since he took office. All these signs indicate that the threat of “color revolutions” in China and Russia is growing, and it is urgent for the two countries to cooperate to prevent “color revolutions.”
- The United States and other Western countries, in collusion with reactionary separatists inside and outside of China, have openly fabricated and provoked China’s internal social problems in an attempt to dismantle China from within by means of “color revolutions.” Whether in the separatist activities of “Xinjiang independence” and “Tibet independence,” or in the Occupy Central rallies and “legislative amendment fiasco” in Hong Kon the West is behind them all.
- In recent years, Russia has witnessed several large-scale demonstrations against President Vladimir Putin. Although it cannot be ruled out that some of these demonstrations do express some legitimate political demands of the people, the real situation is that the United States wants to use the social contradictions in Russia to fan the flames and maliciously intensify the conflict between the people and the government.
- Secondly, “color revolutions” tend to involve younger people. Compared to the traditional “color revolution” in which middle-aged people were the main force, the participants of the “color

revolution” in recent years tend to be younger and younger, and students have become the vanguard of the “color revolution”. . . Not only is the use of social media by the opposition much cheaper and more efficient, the instantaneous nature of social media messages is also more insidious and difficult to combat.

- One new development that we must pay particular attention to in terms of the threat of a “color revolution” against Russia and China is the arrival of Democrat Joe Biden in the White House in early 2021. Compared to his predecessor, Donald Trump, the possibility of a “color revolution” in the United States under Biden’s leadership has increased significantly, and the threat of a “color revolution” against Russia and China, as the main core targets, has increased.
- As Foreign Minister Wang Yi said, “the more turbulent the world becomes, the more resolute Chinese-Russian cooperation will be.” China and Russia will build a model of strategic mutual trust, firmly support one another in defending their core vital interests, jointly oppose “color revolutions,” combat all kinds of disinformation, and safeguard the autonomy and security of each regime.
- Chinese and Russian media must strengthen cooperation and effectively carry out international public opinion guidance and public opinion struggles. At present, the dominance of international public opinion is firmly held by Western countries led by the United States. . . . Faced with the powerful public opinion offensive of the West, China and Russia should not simply defend themselves and respond passively but should also make joint statements, take the initiative, and actively engage in a war of international public opinion with the West.
- The SCO and CSTO are both regional security organizations, and maintaining regional security and stability is a common goal for both. At present, most of the SCO and CSTO member states are common members of both organizations, and most of them are countries at high risk of “color revolutions.” Therefore, it is very important for the two to cooperate in dealing with “color revolutions.”
- The two organizations should intensify their military exercises to jointly respond to external interventions. During the political crisis in Belarus in 2020, the opposition fled abroad after the failure of the planned “color revolution” only to receive strong support from Western countries, with plans to launch another campaign to seize power from abroad. For example, the leader of the Belarusian opposition, Tikhanovskaya, who fled to Poland, was given an official residence in the capital as a “presidential palace in exile,” while Lithuania helped her set up an opposition coordination committee in the Lithuanian capital. In addition, Europe and the United States have pressured Belarusian authorities to overthrow Lukashenko’s regime through verbal intimidation, threats of sanctions, and leading NATO troops up to the Belarusian border. In the face of dual pressure from the domestic opposition and the external military, the government in power is usually unable to cope. For this reason, the two organizations should focus on strengthening military exercises with emphasis on emergency response in case of intervention by external forces in member states so that member states will have the strength to resist “color revolution” attempts in the face of external intervention. For example, shortly after the outbreak of the Belarusian crisis, the CSTO held the Indestructible Brotherhood 2020 joint military exercise in Belarus in response to NATO’s provocations on the Belarusian border. In the future, the SCO should also strengthen the organization of targeted military exercises in similar emergency situations to prevent external forces from violently interfering in the internal affairs of the organization’s member states. At the same time, the two organizations can attempt to conduct cross-organizational military exercises to jointly defend peace and tranquility in Eurasia.

- The two organizations should strengthen exchanges and communication between member states and work together to deal with the threat of “color revolutions.” The SCO and CSTO should conduct security dialogues on the topic of “color revolutions” so that countries can share and exchange information within the organization, conduct risk assessments of “color revolutions” in relevant countries, and then formulate countermeasures to mitigate risks as swiftly as possible. Specifically, member states can be organized to exchange experiences on coping with “color revolutions.” For example, Russia has rich experience in dealing with “color revolutions;” in recent years, Russia has not only successfully thwarted several “color revolutions” against its own country but also accumulated a wealth of practical experience in the process of responding to “color revolutions” in CIS countries, with an impressive capacity for maintaining national interests and strategic security in crisis management. In addition, Russia has adopted legislative control over foreign NGOs and news media, as well as strict legal management of parades and assemblies (Jiang Li, 2015: 13). Russia can teach and share the above experience with members of the two organizations. As an important member of the SCO, China can share with other member states its experience in handling the Hong Kong issue in recent years. As the saying goes, preparedness ensures success, unpreparedness spells failure. Only in this way can we address “the weakest link” and can the overall capacity of member states to deal with “color revolutions” be improved.

Shan Xiaoying, “关于中俄共同防范“颜色革命”的思考” [An Analysis of the Foundation and Approach of Sino-Russian Cooperation in Cyberspace Governance], 国际新闻界 [Chinese Journal of Journalism and Communications] (2017), https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2022&filename=OYRW202201004&uniplatform=NZKPT&v=Vbs294NNI3o-YyIvTCHdiczSOjqX1pzDJUV_QBI4S_zSXG48hInBTbCveM-fU_O8.

- A more important basis for collaboration is that both governments share the same perception of “cyber sovereignty” and prefer a government-led “multilateralism” mechanism of cyberspace governance.
- On the issue of the attributes of cyberspace, the United States and other information powers consider cyberspace to be a “public domain” and therefore deny or hold an ambiguous attitude toward “cyber sovereignty.” In contrast, China and Russia consider cyberspace as a new domain of national sovereignty and an extension of national sovereignty in cyberspace and thus insist that “cyber sovereignty” is as sacrosanct as national territory. In December 2012, Russia proposed the initiative of “cyber sovereignty” at the United Nations International Telecommunication Union. China’s *New National Security Law* clarifies the concept of “sovereignty in cyberspace” through legislation. While there is international controversy over “cyber sovereignty,” it is undeniable that the infrastructure and equipment of the internet, the information that flows through it, and the people who use it are all closely linked to traditional states.
- In addition, China and Russia face a great crisis in the field of information network technology and security, and both have a strong desire to guarantee national cybersecurity and participate in global cyberspace governance. As emerging countries, China and Russia have advantages in certain cutting-edge technologies, though there are still gaps in their independent research and development capabilities in core technologies, key equipment, and operating systems for information networks compared with information powerhouses such as the United States. Moreover, as the independent controllability of cybersecurity is weak, the hidden dangers of their cybersecurity are also more prominent.

- Both China and Russia have outstanding problems with cybersecurity, and thus the two sides can ensure future cybersecurity by promoting the international cybersecurity regime, strengthening technical exchanges between the two countries, and joint law enforcement and other forms of cooperation.
- The Russian and Chinese governments should also strengthen exchanges and cooperation on cybersecurity technologies, improve the ability of both countries to prevent cybercrimes and information attacks, effectively improve the ability of both countries to guarantee cybersecurity, and work together for the goal of building autonomous and controllable cyber systems.
- For example, the Russian government strongly supports the research and development of domestic information security technologies and products and insists on independent innovation. After years of efforts, it has developed its own unique advantages. The Russian companies Kaspersky and Dr.Web have not only taken the lead in the world in terms of market share of antivirus software but also provided strong support to the Russian government in terms of information security. Dr.Web is the Russian Ministry of Defense's designated information security partner. Russia's chip design technology is unique and has reached the world's leading level. Russia is also working on developing its own operating system. In turn, China has accelerated the process of developing localization of network information products since 2014 and has also made significant achievements, such as the production of computer servers, with three domestic vendors in the top five server markets. . . . However, breakthroughs have not yet been achieved in the field of core hardware technologies such as chips.
- China and Russia are already cooperating in information security, and Kaspersky Lab has been cooperating with our government enterprises for many years. In the future, if we can further strengthen S&T cooperation in the field of information and cyberspace, as well as jointly carry out research and development of information and communication technologies including increasing the exchange of information and training of personnel between the two sides, it will certainly be beneficial for both sides to improve the construction of cyberspace security.
- At the early stage of the development of the internet, the United States had absolute dominance over the governance of cyberspace due to its technological leadership. With the development of the internet in various countries, especially in a large number of developing countries, there is a demand to construct a fairer and more just cyberspace that is more in line with the common interests of all countries. The game of cyberspace governance is gradually unfolding, and the prominence of cybersecurity issues has intensified the intensity of this game. Some say this is the era of warring states in cyberspace governance, while others say that cyberspace governance is fragmenting. It is obvious that this is an era when the established system is gradually broken and a new system is being formed, and the game is quite intense and full of challenges, but also provides opportunities for emerging countries such as China and Russia.

Endnotes

Executive Summary

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Chapter 1: Russian Views on Sino-Russian Military-Technical Cooperation

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Chapter 6: China-Russia Cooperation in Space: The Reality behind the Speeches

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Chapter 7: The Global Hybrid War and the Role of China in Russian Strategic Thinking

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Chapter 8: How Does the Chinese Strategic Community Envision Cooperation with Russia on Hybrid and Gray Zone Tactics?

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