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## PANORAMA

## Ukrainian Minerals Deal Must Balance Energy Independence With International Commitments

Anna J. Davis

March 7, 2025

#### **Executive Summary:**

- Ukraine holds Europe's largest reserves of uranium and aims to become selfsufficient in domestic uranium production by 2027.
- Ukraine and the United States are debating how a critical minerals deal could factor into potential security guarantees or a peace settlement in Russia's war against Ukraine.



(Source: Wikimedia Commons)

 Any critical minerals deals involving uranium will require Ukraine to balance its domestic nuclear fuel needs with commitments to export uranium abroad.

On February 28, Ukraine and the United States were poised to sign a landmark deal on critical minerals in Ukraine. The "Bilateral Agreement Establishing Terms and Conditions for a Reconstruction Investment Fund" would have created a fund jointly held by the United States and Ukraine, with 50 percent of the financing coming from the "future monetization" of Ukraine's natural resources (See EDM; Kyiv Independent, February 26). Uranium has been one of the key minerals under discussion, and thereby represents a potential mechanism by which Kyiv may be able to achieve its goals in reaching a lasting peace agreement with security guarantees. If such an agreement is reached, Ukraine will need to balance between its own domestic nuclear fuel supply goals as well as any new uranium export commitments to partners abroad.

The signing of the deal was canceled after the public dispute between Ukrainian President Volodymyr Zelenskyy and U.S. President Donald Trump in the White House. This has created uncertainty over whether or not a new deal will be signed or if alternative partners may now

express interest (See <u>EDM</u>, March 3). Zelenskyy stated in a press conference on March 2 that Ukraine remains ready to sign the minerals deal with the United States (<u>BBC News</u>, March 3). On March 6, U.S. Special Envoy to the Middle East, Steve Witkoff, told reporters that Zelenskyy has offered to sign the deal (<u>RBC-Ukraine</u>, March 6).

Ukraine's uranium reserves are the largest in Europe and represent 2 percent of estimated global reserves (<u>Ukrainian Geological Survey</u>, accessed March 6). Enriched uranium is primarily used as fuel for nuclear reactors. This involves undergoing a process to increase the isotopic proportion of U-235 from 0.72 percent to up to 20 percent (<u>International Atomic Energy Agency (IAEA</u>), September 3, 2024). Conversely, highly enriched uranium, which has an isotopic proportion beyond 20 percent, is mostly used for military and research purposes (<u>IAEA</u>, September 3, 2024). U.S. Treasury Secretary Scott Bessent has included uranium among the strategic minerals that are of American financial interest, saying that the deal overall represents an "economic security guarantee" for Ukraine (<u>Fox News</u>, February 24). This is in line with the Executive Order on "Unleashing American Energy," signed by U.S. President Donald Trump on January 20, to

potentially add uranium to the U.S. Geological Survey's list of critical minerals (The White

House, January 20).

Prior to Russia's full-scale invasion, Ukraine's nuclear reactors produced 51 percent of the country's electricity supply (IAEA, 2022). Nuclear energy is a major part of Ukraine's energy mix and a mechanism for balancing against reliance on Russia for domestic energy needs (Davis, 2022).

Uranium supply is essential to ensuring Ukrainian energy independence in its nuclear sector. Kyiv aims to become self-sufficient in supplying its uranium needs by 2027 (World Nuclear News, January 5, 2022). Since 1994,

Figure 1: The Nuclear Fuel Cycle

The Nuclear Fuel Cycle

Fuel rods

Fuel rods

Fuel rods

Fuel rods

Fuel rods

Reactor

Used fuel

O.7% U-235

Conversion to UF

Reprocessed uranium

Wastes

Vitrification

Disposal

(Source: World Nuclear Association)

Ukraine has officially sought to establish a domestic nuclear fuel cycle (see Figure 1), which includes "uranium ore mining to disposal of radioactive waste" (<u>President of Ukraine Leonid Kravchuk</u>, 1994). At that time, then-President Leonid Kravchuk issued a decree to pursue nuclear fuel "independence from external factors" (<u>President of Ukraine Leonid Kravchuk</u>, 1994). Petro Kotin, president of Ukraine's nuclear corporation Energoatom, announced in 2023 that completion of a domestic nuclear fuel cycle could be achieved by 2026, although an exact deadline has not been set (<u>Energoatom</u>, Accessed April 11, 2024). The latest "Energy Strategy of Ukraine of the period"

until 2035" envisages Ukrainian self-sufficiency in the manufacturing of nuclear fuel, emphasizing the importance of reducing dependence on foreign suppliers, including but not limited to Russia (Rada, August 18, 2017).

The question remains as to whether Ukraine is capable of meeting its own goal of supplying 100 percent of its nuclear fuel needs in addition to being able to export uranium to its partners abroad. If the latter factor is not achievable, this complicates the inclusion of uranium in any mineral deals with the United States or other partners. The answer to this question, according to a high-ranking Ukrainian energy expert, is "potentially, yes" (Original Interview Conducted by the Author, February 28). Today, Ukraine operates a total of three uranium mines (Ingulskaya, Smolinskaya, and Novokonstantinovskoye) through the state-owned company VostGOK. Data from 2024 reveals that these mines supply 20 to 40 percent of fuel needs for Ukrainian nuclear power plants (NPPs) (Ukrainian Geological Survey, accessed March 2). In 2020, Ukraine's 15 nuclear reactors required 2,480 metric tons of uranium (tU) (IAEA, 2022). At present, 6 of these reactors are under Russian occupation at the Zaporizhzhia NPP. If Ukraine needs 2,480 tU per year for 15 reactors (using U-235) and in 2021 Ukraine met 30 percent (744 tU) of this need with domestic uranium supply, we can therefore assume that Ukraine needs to be able to produce an additional 1,736 tU per year in order to be self-sufficient. This estimate represents an absolute minimum, as it focuses only on the final product of the time-intensive process of turning mined uranium into ready fuel assemblies, which would necessitate additional production. This might mean, for example, that Ukraine must be able to have the ability to mine and process 2,000 tU a year before it has any additional uranium to export abroad.

Figure 2: Cost Ranges of Ukrainian Uranium Reserves (in tU)

<\$40/kgU	<\$80/kgU	<\$130/kgU	<\$260/kgU
0	71,800	107,200	185,400

(Source: IAEA, 2022)

Fortunately, Ukraine's recoverable uranium supplies are extensive. The relative feasibility of extracting uranium supplies is generally classified by how expensive the ore is to extract into four categories: <\$40/kgU (meaning less than \$40 per kilogram of uranium metal mined), <\$80/kgU, <\$130/kgU, and <\$260/kgU. According to the latest IAEA "Red Book" on global uranium resources, production, and demand, Ukraine's identified recoverable uranium classified as reasonably assured and inferred was 185,389 tU at costs of <\$260/kgU tU and 71,841 tU at costs of <\$80/kgU, as of 2021 (see Figure 2) (IAEA, 2022). Additionally, estimated undiscovered in situ uranium resources amount to 277,500 tU, including deposits on the flanks of identified deposits and those based on prognostic data (IAEA, 2022). These numbers are promising when considering both

Ukraine's domestic uranium needs and interests in exporting uranium, including via any potential mineral deals.

Increasing the amount of uranium mined domestically, however, is not enough to achieve self-sufficiency because the uranium must first be enriched and then assembled into fuel rods before it can be used in a reactor. Ukraine does not currently have these capabilities. At present, Russia and the People's Republic of China (PRC) account for more than half of the global uranium enrichment capacity, while Russia alone accounts for 40 percent (International Energy Agency, January; Ukrainian Geological Survey). Prior to Russia's full-scale invasion, Ukraine sent its uranium to Russia for fuel fabrication (the process of assembling enriched uranium into fuel rods), which would then be sent back to Ukraine's nuclear power plants for use inside the country's reactors. Since the full-scale invasion, Ukraine has halted procurement from Russia and instead has partnered with Westinghouse, a U.S.-based company, and Cameco, a Canadian company, for its nuclear fuel needs.

Ukraine has long cooperated with international partners to diversify its nuclear fuel needs. One of the most promising early instances of this was in August 2005, when the first trial operation of six Westinghouse fuel assemblies was started at Unit 3 of the South Ukraine NPP (Westinghouse Nuclear, July 19, 2018). In 2006, the "Energy Strategy of Ukraine for the period up to 2030" outlined the need to diversify Ukraine's nuclear fuel sources from Russia to incorporate other foreign suppliers who could create fuel assemblies capable of fitting into Ukraine's VVER reactors (the hexagonal design shape of VVER fuel rods is a design trademark) (Verkhovna Rada of Ukraine, 2006; Oxford Institute for Energy Studies, 2022). Additional Westinghouse fuel assemblies were loaded in 2009 after problems were resolved over manufacturing defects and errors in fuel loading (World Nuclear Association, March 25, 2024). In September 2023, non-Russian nuclear fuel was loaded into a VVER-440 reactor at Ukraine's Rivne NPP for the first time (Energoatom, September 10, 2023). According to Halushchenko, this demonstrated that "Russia's monopoly on this fuel type is over" (Pravda, September 10, 2023). In 2024, Ukraine and Westinghouse announced plans to construct a facility to produce nuclear fuel for VVER-1000 reactors (designed by Russia's stateowned nuclear corporation, Rosatom) (Interfax, October 17, 2024). According to one high-ranking Ukrainian energy expert, the construction of such a facility is expected to take three years (Original Interview Conducted by the Author, February 28).

In 2023, Energoatom and Cameco signed an agreement to dispatch uranium mined at Ukraine's Eastern Mining and Processing Plant (SkhidGZK) to Canada for conversion into natural uranium hexafluoride (UF6) (Cameco, February 8, 2023; World Nuclear News, September 18, 2023). It will then be sent for enrichment to Urenco (a U.K.–Dutch–German company), then to Westinghouse for manufacture, then back to Ukraine. The agreement is meant to supply fuel for Rivne NPP,

Khmelnytskyi NPP, and South Ukraine NPP from 2024 until 2035 (<u>Energoatom</u>, Accessed June 11, 2024; <u>Urenco</u>, Accessed June 11, 2024).

Ukraine's uranium reserves hold promising potential for achieving domestic energy independence and advancing its nuclear fuel cycle, in addition to serving as a possible mechanism for achieving security guarantees in any peace agreements. Any such deals would need to take into account Ukraine's commitment to protecting against reliance on foreign actors for critical energy needs as well as the provision of necessary security guarantees to ensure Ukrainian territorial integrity and sovereignty.

To read the article on the Jamestown website, click **here**.

## MILITARY & SECURITY

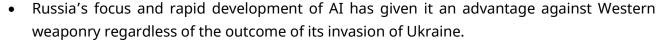
#### Russia Capitalizes on Development of Artificial Intelligence in Its Military Strategy

Sergey Sukhankin

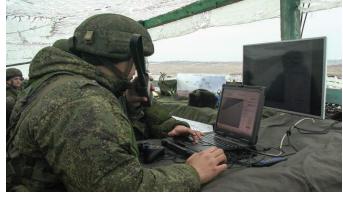
March 3, 2025

#### **Executive Summary:**

- Russia has significantly increased its investment in artificial intelligence (AI), allocating a substantial portion of its state budget toward AI-driven military research. This funding aims to enhance Russia's technological edge in modern warfare, particularly in AI-enabled military applications.
- (Source: Russian Ministry of Defense) Russia's full-scale invasion of Ukraine marked the first major conflict with widespread AI use. Ukraine, supported by U.S. AI firms, successfully countered Russian forces, prompting Russia to accelerate AI integration in command systems, drones, and air defense networks.



Russia's AI development traces back to early Soviet experiments in the 1960s. It was not after its illegal annexation of Crimea in 2014, however, that Russia's military AI development accelerated.



On February 12, the leading European defense technology company, Helsing, based in Germany, announced that 6,000 HX-2 strike drones will be delivered to Ukraine (Helsing.ai, February 12). The drones are powered by onboard artificial intelligence (AI), rendering HX-2 immune to electronic warfare (EW) measures with its ability to search for, re-identify, and engage targets without a signal or a continuous data connection. The delivery of these drones follows a previous order of 4,000 HF-1 strike drones which are currently being delivered to Ukraine. Prior to this, Dmitry Chernyshenko, the Deputy Prime Minister of Russia, announced massive investment of 5 percent of the state budget allocated to funding scientific research in AI and of 15 percent to other areas of research

with the use of AI tools (<u>Tsargrad.tv</u>, January 31). One of the main purposes of this funding is to use AI technologies to solve applied military problems (<u>Government of Russia</u>, January 31). With technology taking a central role in Russia's full-scale invasion of Ukraine, some Russian and foreign military experts referred to the growing use of AI as an upcoming "revolution in military affairs," where Russia could become one of the world's leading powers given its hands-on experience in its invasion of Ukraine (<u>Discred.ru</u>, January 14, 2024; <u>Kommersant.ru</u>, September 15, 2021; <u>Focus.ua</u>, May 26, 2023; <u>Army.ric.mil.ru</u>, January 10, 2022).

#### **Russia's AI From Soviet Times to 2021**

The roots of Russia's AI technology date back to the 1960s and should be attributed to the emergence of the Zelenograd-based "science city" (Haykorpaд, naukograd). The "science city" project, which, among other things, developed proto-AI technologies, was supported by Alexei Kosygin, the Premier of the Soviet Union, and Alexander Shokin, the Minister of the Electronics Industry, and other notable figures from the Soviet Defence Industrial Complex (Ras.ru, August 9, 2018). In 1962, such works were initiated under the umbrella of the Science-Research Institute of Physics Problems (Научно-исследователский институт физических проблем, Nauchnoissledovatelskii institute fizicheskikh problem), where experts from various realms of knowledge, including physics, information technology (IT), mathematics, biology, and neurosurgery, experimented on projects related to artificial neural networks. At that time, the experiments' main focus was on increasing the capabilities of the Soviet anti-missile/aircraft (PVO-PRO) system. Later, it was claimed that much of the Soviet scientific achievements in the realm of AI were then used by the People's Republic of China (PRC) in the development of these technologies (Ras.ru, August 9, 2018; Wang, Jieshu. "The early history of artificial intelligence in China (1950s–1980s)." In Annual Meeting of the Society for the History of Technology (SHOT), St. Louis, MO. 2018).

Despite the Soviet leadership's neglect of the emerging industry, certain types of Soviet weapons systems were equipped with fully automated proto-AI systems. For example, in 1983 the Soviet Union issued Resolution 686-214, by which the navy received the first batch of the P-700 Granit naval anti-ship cruise missiles available both in surface-to-surface and submarine-launched variants and capable of targeting both sea- and ground-based targets (RIA Novosti, August 15, 2023; NPO Mashinostroeniya, accessed March 2 via Web Archive). Following the Soviet Union's collapse in 1991 and a subsequent decrease in military spending, research on AI for military purposes was halted (Ras.ru, August 9, 2018). The first signs of an AI comeback as critical for Russia's military modernization appeared after the worsening of Russo-Western relations in 2014 caused by Russia's illegal annexation of Crimea and the Russia-sponsored conflict in the Ukrainian Donbas oblast. In 2017, Russian President Vladimir Putin stated that "AI is not only Russia's future but where the future of the whole humankind lies ... Those who will secure leadership in this domain, will become the global master " (Topwar.ru, April 6, 2021). Two years later, another

milestone for Russian AI was marked with the "National Strategy on the Development of Artificial Intelligence until 2030" (Kremlin.ru, October 10, 2019). The strategy was adopted by a Presidential decree to form the foundation of state programs for AI development which would enable "Russian artificial intelligence technologies to occupy a significant share of the global market" (Kremlin.ru, October 10, 2019).

An article in 2021 published in a specialized Russian defense and military-oriented magazine "Military Thoughts" (Военная Мысль, Voyennaya Mysl) provided seven methods and areas of AI use by the Russian armed forces (Cyberleninka.ru, accessed February 22). These included fire-control systems to locate and track flying objects; air and missile defense systems (PVO-PRO) to locate and destroy flying objects; Multi-Domain Command and Control to collect, process, and systematize large amounts of information and data; robotics and weaponry able to be used on the battlefield and at a distance; and electronic warfare, training simulators, and intellectual weapons systems that can independently track and change targets.

Prior to Russia's full-scale invasion of Ukraine in February 2022, the use of AI was only episodically showcased despite Russia's military-political leadership acknowledging its importance. Major changes started to occur only after February 2022 as Russian forces encountered problems in Ukraine when they faced certain types of Western weaponry and equipment.

#### Russia's Full-Scale Invasion of Ukraine and AI Military Applications

Russia's full-scale invasion of Ukraine became the first major armed conflict to include the active use of AI, which in turn caused problems for the Russian armed forces. As reported by Russian sources, due to the assistance provided by the United States to the Ukrainian army, particularly the use of AI technologies from U.S. companies Maven and Palantir, the Ukrainian side managed to collect, decode, and translate (into Ukrainian and English) information transmissions by the Russian army. Reportedly, this assistance was primarily used by Ukraine to conduct strikes against Russian targets, allowing the United States to "test their military AI capabilities" in real-time warfare with the Russians (Vzglyad, January 8). The Russian forces' inability to counter Western technologies encouraged Russia to invest more effort in strengthening and developing its own AI capabilities.

For instance, AI became the dominant theme of the "Army-2023" forum conducted under the auspices of the Russian Ministry of Defence (MoD). Major General Alexander Osadchuk, who serves as the Head of the Innovation Development of the MoD, claimed,

The dominating topic of the scientific-business program of the forum in 2023 became such issues as AI and diversification of the defense-industrial complex, the most up-to-date command and control systems, reconnaissance, precision weapons, and robotics. Particular attention is paid to

the issue of drones [and the use of AI] ... In effect, what we are talking about is the emergence of a new separate capital- and technology-intensive industry. A large part of such projects and solutions ... are being successfully integrated with operations of our armed forces participating in the special military operation (<u>RIA Novosti</u>, August 15, 2023).

These comments, in light of the negative experience of facing Western AI technologies on the battlefield, are reflected in the Russian MoD's consolidation of efforts to attempt to catch up with its Western competitors. One such step was announced in August 2022, when under the umbrella of the MoD, a special department was created whose activities are specifically concerned with the "development of capabilities in AI in the production of weaponry" (TASS, August 17, 2022). By August 2023, the MoD announced that active works on more than 500 types of various AI-related projects were underway with 222 of them to be finalized and put into operation by the end of that year (Zvezdaweekly.ru, September 23, 2022; RIA NovostiRia.ru, August 15, 2023). Furthermore, Russia has finalized the delegation of responsibilities for companies by tasking the Military Technopolis "Era," JSC Ruselectronics, and The PJSC United Aircraft Corporation with AI development for military needs (Cnews.ru, July 11, 2019; Zvezdaweekly.ru, April 19, 2021; Vz.ru, January 19, 2024).

In 2023, Russian military experts analyzed the main tasks that should be facilitated and optimized with the use of AI to increase the effectiveness of Russian armed forces on the battlefield, including in command and control, developing pre-emptive capabilities and graphical military document of the battlefield, modeling military operations, forecasting, administrative planning, and monitoring the battlefield (Cyberleninka.ru, accessed February 20). The use of AI will play a key role, resulting in a drastic optimization and improving the effectiveness of the Control and Command system on the battlefield and during the preparatory stage. The course of Russia's war against Ukraine has further showcased the strategic importance of AI as an indispensable element of warfare. According to Russian sources, the Russian Armed Forces continued using AI in such PVO-PRO systems as Pantsir S-1, S-300, S-400, and, quite importantly, the S-350 Vityaz medium-range surface-to-air missile systems that were first introduced in 2019 and then employed during the war. While this information comes primarily from Russian sources, thus including natural bias and the lack of objectivity, this strategy has proven its effectiveness against U.S.-supplied ATACMS and France/U.K.-supplied Storm Shadow/SCALP-EG missiles (Topwar.ru, July 4, 2024). The Russian side has also extended its focus on developing AI technologies in drones. For instance, according to Russian military expert and the director of the Museum of the PVO-PRO, Yuri Knutov, Russia has now started integrating AI in its ZALA Lancet, an unmanned aerial vehicle (UAV) and loitering munition, which was first demonstrated in 2019. Knutov stated that the new technology allows Russia to launch a "swarm of Lancet drones from several independent launching platforms."

Following launch, drones are able to exchange information and divide their tasks" (MK.ru, January 3, 2024).

Assessing these preliminary results of Russia's military prioritization of AI demonstrates that the Russian state appears to be investing considerable effort into the "normalization" of using AI for military purposes. A recent study that analyzed the Russian media and its portrayal of AI estimated that 83 percent of texts published in Russian media referring to AI have a positive connotation while only 17 percent are negative (RUND University, 2024). It also noted that there is a "visible trend toward the justification of AI use" for military purposes, given the "unfolding arms race [...] and the need to prevent threats posed by the North Atlantic Treaty Organization [NATO]." The main findings reveal that "[b]y and large one could talk about the normalization of AI military use in public opinion [in Russia]" (RUND University, 2024).

#### Conclusion

The use of AI in Russia had a late start with Russian companies falling short of North American or Chinese corporations working in the sector. This image, however, may be deceptive. Following Russia's full-scale invasion of Ukraine, Moscow's emphasis on the development of AI, both for military and civilian purposes, has become more prominent. The most recent data suggest that Russia is now among the top 10 countries in the world in terms of AI integration throughout various spheres of public life and the economy (Lenta.ru, March 13, 2024).

This said, however, Russian military experts, including senior fellow at the Academy of Military Science Vladimir Prikhvatilov, stated that "for now we have virtually no chances to catch up with the Chinese or the Americans [in the use of AI] since our technological capabilities are inferior" (Lenta.ru, January 16, 2024). Three factors could potentially narrow this gap. Russia's full-scale invasion of Ukraine has afforded Russia an unparalleled amount of information about the use of AI in real-time conditions of actual military confrontation.

Secondly, as an authoritarian regime, Russia can more easily mobilize internal resources to achieve specific goals, granting the Kremlin a quicker pace in development when choosing to allocate resources toward AI. Lastly, Russia is collaborating with other autocratic states, such as Venezuela, in the domain of AI, which provides new opportunities for mutual technological progress. Given the strengthening of the military and security cooperation between Russia and Democratic People's Republic of Korea (DPRK), it is possible that the two states may collaborate on AI as well. Even though cooperation between Russia, DPRK, and Venezuela in such an innovative domain as AI is not inherently menacing, the situation today with the development of the internet and cyber espionage reaching new levels, could present new threats to other countries. Even more concerning is that the PRC, where the level of AI development has reached impressive heights, seems to be on the path to strengthening AI cooperation with Russia. Recently, Moscow and Beijing

signed an agreement to develop a joint collaborative effort in the domain of AI (<u>President of Russia</u>, May 16, 2024).

While the scope of the agreement and concrete steps were not articulated, it is clear that with the intensification of the Sino-American rivalry, the PRC may consider using Russia and its valuable experience in the domain of AI for its own goals. Ultimately, Russia's growing emphasis on AI for military applications underscores its determination to close the technological gap with international competitors, particularly the United States. Whether or not Russia can fully catch up with global AI development, the fact remains that its increasing AI capabilities, bolstered by real-time battlefield experience and strategic alliances, could reshape military dynamics and conflict situations in the years to come.

To read the article on the Jamestown website, click **here**.

#### Credibility of Russia's Red Sea Naval Facility Agreement With Sudan

Andrew McGregor

March 6, 2025

#### **Executive Summary:**

- Moscow is pursuing the construction of a naval port on Sudan's Red Sea coast, reflected in the finalization of an agreement between Russia and Sudan in February.
- The deal appears to be part of the Kremlin's efforts to create new strategic assets in Africa following the loss of air and naval bases in Syria.



(Source: Ministry of Defense of the Russian Federation)

• The elected government of Sudan's inability to ratify the agreement reflects the salience of domestic and international opposition to a changed security situation on this vital maritime trade route.

Russia and the leading faction in Sudan's ongoing civil war have reportedly finalized an agreement to establish a Russian naval base on the Red Sea coast. Since the opening of the Suez Canal in 1869, there may be no more strategically important body of water in the world than the Red Sea. Access to the sea, which carries 10 to 12 percent of global trade on its waters, is gained only through the Egyptian-controlled canal to the north and the narrow Bab al-Mandab strait to the south (The Observatory of Economic Complexity, accessed March 4). So far, no state outside of the region has established a naval base between the canal and Bab al-Mandab since the departure of the British from Sudan's primary Red Sea port, Port Sudan, in 1956. That appeared to change on February 12 with the announcement that an agreement had been reached to construct a Russian naval base in Port Sudan.

The announcement was made by Dr. 'Ali Yusuf Sharif, appointed in November 2024 as nominal foreign minister by Lieutenant General 'Abd al-Fatah al-Burhan, whose faction controls most of Sudan. During a televised press conference in Moscow with his Russian counterpart, Sergey Lavrov, Sharif said "This is an easy question, there are no obstacles, we are in complete agreement" (Izvestiya, February 12; Al Arabiya; Atalayar, February 13). After the meeting, Lavrov expressed his

appreciation for the "balanced and constructive position" taken by Sudan on the situation in Ukraine (<u>TASS</u>, February 12). There has been no confirmation from Moscow of the official signing of this deal.

Since 2017, Moscow and Khartoum, represented by the since-deposed Sudanese president, 'Omar al-Bashir, have discussed the creation of a Russian naval base in Sudan (See\_EDM, December 6, 2017). A preliminary agreement, forming the basis for the current pact, was developed in 2020 but never implemented (MK.ru, November 12, 2020). This original agreement includes a 25-year lease with a possible ten-year extension (Uz Daily, November 15, 2020).

Moscow holds a vested interest in establishing a naval base in this region, especially as the future of its naval base in Tartus, Syria remains uncertain (Military Review, December 11, 2024; Izvestiya, January 22). The primary function of Russia's new "logistical base," as it is described by Moscow, is to repair and replenish up to four Russian naval craft at a time, including nuclear-powered vessels. The base will house up to 300 personnel, with an option to increase this number with Sudan's permission (TASS, February 12; Sudan Tribune, February 12). Russia will be responsible for air defense and internal security, while Sudan will provide external security in tandem with temporary Russian defensive positions outside the base. Russia will be at liberty to import and export weapons, munitions, and military material to and from the base (Vreme, February 13).

The completion of the deal may open the possibility for Sudan to purchase Russian-built SU-30 and SU-35 fighter jets, which it has sought since 2017 (<u>Sudan Tribune</u>, July 16, 2024). The sale has been complicated by an inability to finalize the port offer, U.S. sanctions on Russian manufacturers, and Sudan's difficulty in making payments. Oil-rich Algeria, by comparison, has just completed a deal to obtain 14 fifth-generation Russian SU-57 stealth fighters (<u>Janes.com</u>, February 14).

Cooperation with Russia is also attractive to Sudan given Khartoum's need to secure oil exports on its coast. Port Sudan serves as the export point for Sudan's troubled oil industry, now operating at only slightly more than 40 percent of pre-war production. Sudan's Ministry of Energy and Petroleum (MOP) is currently discussing a new partnership with Russia related to exploration, financing, and technical assistance (Sudan Tribune, January 25). In November 2024, MOP Minister Dr. Muhyaddin Na'im Muhammad Sa'id met with his Russian counterpart in Moscow to discuss prospects for joint projects and attractive areas for Russian companies to invest in oil and gas exploration (Sudan News Agency, November 16, 2024). The People's Republic of China (PRC) was formerly Sudan's main energy partner. According to one Sudanese economic expert, "the [civil] war has changed this equation" in favor of gaining expertise, especially related to oil extraction, from Russia (Sudan Tribune, January 25).

For Russia, there is a risk in initiating the construction of an expensive naval facility during a period of continued instability in Sudan. There is also the question of overland supply from Khartoum to

Port Sudan, which essentially follows a single highway that has been blocked in the past by Beja protestors (New Arab, October 27, 2021; see <u>FDM</u>, November 14, 2023). To mitigate such risks, Sudan appears to be trying to follow the "Djibouti approach" to hosting foreign military bases. Djibouti currently hosts separate French, Chinese, U.S., Italian, and Japanese military facilities while U.K. forces are hosted at the U.S. facility (see <u>FDM</u>, July 8, 2024). According to Sharif, the new Russian base in Sudan, like those in Djibouti, will not pose a threat to the sovereignty of its neighbors nor Sudan itself (<u>Anadolu Ajansi</u>, February 13).

There are, however, major and ongoing differences between the military and civil components of the *de facto* government in Port Sudan that could sideline Russian ambitions in the Red Sea. Sharif's claim that there were "no obstacles" to implementing the agreement is not necessarily correct. There is broad opposition to the unelected leaders of the Transitional Sovereignty Council (TSC) and Sudanese Armed Forces (SAF) making a deal with major implications for Sudanese sovereignty (see <u>Terrorism Monitor</u>, April 28, 2023). As the deal cannot presently be ratified by any elected body in Sudan, there is a strong possibility that a future government (elected or otherwise) might reject the deal entirely as having no legal legitimacy. The January 20 cancellation of Russia's 2017 49-year lease on the port of Tartus by the new Syrian regime provides an exemplary lesson on such a danger (<u>Maritime Executive</u>, January 21).

Another approach the Sudanese leadership may use to mitigate security risks, and in turn, may increase Russia's attraction to creating a naval base in the country, is via deliberate changes in government representation. The de facto leader of Sudan is Lieutenant General 'Abd al-Fatah al-Burhan, chair of the unelected Transitional Sovereignty Council and commander-in-chief of the Sudanese Armed Forces. Al-Burhan's government is now located in Port Sudan rather than wartorn Khartoum. Al-Burhan differs from previous leaders, as he has attempted to garner support from eastern Sudan, a traditionally impoverished area with little influence or representation in the central government. Most of the rebellions, coups, and civil conflicts that have plaqued Sudan since independence and effectively prevented its successful development have been sparked by the inequality, domination, and monopolization of power. Since eastern Sudan has been dominated since independence by the Arab Nubian elites of northern and central Sudan, al-Burhan's emphasis on involving eastern Sudan in his government represents a measure to prevent future coups or conflict. One of the figures who will likely be involved in establishing a Russian naval base in Sudan is 'Umar Banfir, the new trade minister. Banfir is the former director of Sudan's Sea Ports Authority and is expected to represent eastern interests to the government (Jordan Times, November 4, 2024).

Sanctions imposed by the United States on the SAF and al-Burhan personally in the last days of the Biden Administration appear correlated with al-Burhan's renewed interest in securing the naval

base deal with Russia (<u>US Treasury Department</u>, October 24, 2024; <u>US Department of State</u>, January 16; <u>US Treasury Department</u>, January 25).

Meanwhile, there is little evidence to suggest that the new Trump administration will impose additional sanctions or attempt to restrict Sudan's pursuit of a new deal with Russia given the previous removal of sanctions under the first Trump administration (<u>Congressional Research Service</u>, July 5, 2017). Nearby Egypt and Saudi Arabia remain firmly opposed to the deal (<u>Sudan Tribune</u>, July 16, 2024).

Domestic political opposition, foreign objections, tribal unrest, and local fears that a Russian base might attract attacks from rivals, which in turn could damage or shut down Sudan's most important port, remain considerable threats to the construction of a Russian naval facility in Port Sudan. These considerations also threaten Russian attempts to reinvigorate Sudan's oil production, which has been declining for years due to a lack of investment and civil conflict. While the Russian naval base deal in Sudan holds strategic potential for Moscow, its success hinges on overcoming these political, domestic, and regional challenges.

To read the article on the Jamestown website, click <u>here</u>.

## POLITICS & SOCIETY

## Triumphalism in Moscow About Setback in Peace-Making for Ukraine Could Be Short-Lived

Pavel K. Baev

March 3, 2025

#### **Executive Summary:**

- Russian propagandists are capitalizing on the aftermath of the talks between U.S. President Donald Trump and Ukrainian President Volodymyr Zelenskyy on February 28, highlighting the diplomatic discord.
- The Kremlin cautiously monitored U.S.-Ukraine negotiations, concerned about economic implications and potential Western unity. While Russian President



(Photo by Andrew Harnik/Getty Images)

- Vladimir Putin seeks to exploit divisions, Moscow may be misjudging Europe's increasing commitment to strengthening its defense and supporting Ukraine.
- European leaders have since convened emergency summits, reinforcing their commitment to Ukraine's defense as an attempt of shifting the balance away from Putin's long-standing goal of isolating Ukraine and weakening transatlantic ties.

Moscow's mouthpieces competed to celebrate and ridicule the individuals involved in the February 28 talks in Washington, D.C. between Ukraine and the United States. To the surprise of many, Ukrainian President Volodymyr Zelenskyy left the White House empty-handed after arriving with the expectation of signing a symbolically important minerals deal with U.S. President Donald Trump. Zelenskyy's point, "I am not here to play cards," echoes the same conviction as when he famously refused to escape from Kyiv when threatened by Russian tanks, claiming "I need ammunition, not a ride" (X/@UkrEmbLondon, February 26, 2022; Novaya Gazeta Europe, March 1). Ukrainian victory in Russia's war against the country remains out of reach, and in the latest Russian opinion polls, less than a third of respondents express resolve for continuing combat operations. Support for making concessions in order to sign a prospective peace agreement has, however,

barely reached 30 percent (<u>Levada.ru</u>, February 28). This creates little if any incentive for Russian President Vladimir Putin to indicate readiness to make steps toward a compromise.

In an interview on March 2, Russian Foreign Minister Sergei Lavrov explained that "during Donald Trump's first election, many of our politicians fell into euphoria. Now they are falling into it again" (Ministry of Foreign Affairs of Russia, March 2). This euphoria is due to what Lavrov characterized as the U.S. administration's pragmatism and common sense in its approach to relations with Russia. The Kremlin was likely worried about the flurry of diplomatic activity in Washington D.C. last week, while its own consultations about normalizing relations and appointing a new ambassador to United States were progressing slowly (Vedomosti, February 28). The quarrel in the White House last Friday, however, has been presented by the Russian state and in media narratives as "[u]nprecedented in the history of international politics and diplomacy" and evidence of Ukraine being in the wrong (Ministry of Foreign Affairs of Russia, March 1). The Kremlin considers the exchange as reassurance that Zelenskyy is "obsessed with continuing the war and rejects peace" (Ministry of Foreign Affairs of Russia, March 1). It has, in Moscow's mind, confirmed that Zelenskyy is "the most dangerous threat to the international community," he has "lost his grip on reality and is unable to reach and honor agreements" (Ministry of Foreign Affairs of Russia, March 1). Kirill Dmitriev, Putin's newly-promoted negotiator, described the discord as "historic" (RBC, February 28).

Russian state media have published a full transcript of the exchange, characterized as an "open squabble," between Zelenskyy, Trump, and U.S. Vice President JD Vance (<u>Izvestiya</u>, March 1). Moscow pundits have been eager to overdo one another with sarcastic assessments of Zelenskyy's political blunders and awkward English (<u>Kommersant</u>, February 28). They emphasize U.S. official statements that Zelenskyy was put in his place and how Zelenskyy "rushed" out of the Oval Office after "Trump personally ordered Zelenskyy to leave the White House and the United States" (<u>TASS; Ekspert</u>, March 1).

Zelenskyy's readiness to engage in talks at the White House reflected his commitment to sign the agreement on U.S. privileged access to Ukraine's mineral resources, including rare earth elements, that had been negotiated despite many technical issues and emotional reactions (Carnegie Politika, February 27). Moscow had been monitoring the bargaining with much concern assuming that the deal might include deposits on the Ukrainian territories annexed by Russia (NV.ua, February 28). Putin even tried to counter this agreement by inviting the United States to invest in development of Russian mineral resources, including aluminum (The Moscow Times, February 27). Russia is rich in many minerals, including rare earth elements, but many discoveries from the Soviet era, for instance lithium deposits, are underexplored, and the investment climate remains forbidding (Forbes.ru, February 26; Nezavisimaya gazeta, February 27). Offers made by Dmitriev to his U.S. counterparts were far from exciting, but the Ukrainian projects are also a long way from

becoming profitable. The disappointing cost-benefit calculations may have dissuaded Washington from presenting the agreed document as a major success (Re: Russia, February 28).

Instead of the minerals deal, the demand for a ceasefire became the key issue. For Ukraine, the central question is security guarantees, because Zelenskyy cannot trust Putin's goodwill (see <u>Strategic Snapshot</u>, February 24). For Russia, an armistice leaves the root causes of the existential conflict unaddressed, while the war is, in Putin's words, "God's will" (<u>Rossiiskaya gazeta</u>, February 23). Zelenskyy did not deny the problems that Ukraine is facing while defending against Russia's invasion, yet the same cannot be said for Putin who continues to pretend that miniscule advances by Russian forces do not yield tremendous costs (<u>The Insider</u>, February 24). The attrition of the "big battalions" of the Russian Army can no longer be compensated by recruitment offers with mind-boggling bonuses to "volunteers," which in turn would delay any further mobilization efforts by many months (<u>The Moscow Times</u>, February 28).

As European leaders convene an emergency summit with Zelenskyy in London for a "once in a generation moment," Putin's position is evaluated quite differently than in Washington (Nezavisimaya gazeta, March 1; The Kyiv Independent, March 2). The summit has alarmed many Russian "patriotic" commentators (TopWar.ru, February 26; Meduza, March 1). This position of collective strength has not been the only show of support for Zelenskyy by European leaders, who gathered at an emergency summit in Paris last Monday on the sidelines of U.S.-Russia talks in Saudi Arabia (Kyiv Independent, February 18). These summits reflect the fast emerging determination in Europe to invest greater resources in building own defense base and in keeping Ukraine in the fight, while leaving Russia to face an overwhelming coalition in its immediate and most important neighborhood (Izvestiva, February 28).

These developments have required tactical rhetorical maneuvering by the Kremlin as it has in prior years dedicated great effort to constructing a worldview in which the intrinsically hostile United States leads a grouping of obedient vassals in confrontation with Russia (Svoboda.org, March 2). This narrative is shifting as the rapprochement between Putin and Trump undercut such simplistic geopolitics. Experts in Moscow have ventured opinions about the need to modify the political discourse, but in fact, it is the whole political philosophy of breaking the U.S. world "hegemony" that needs change (RIAC, February 26). Putin attempted to explain his maneuvering addressing the expanded gathering of the Federal Security Service (FSB) Collegium, but the usefulness of embracing the arch-enemy was far from obvious for this loyal audience of the most powerful of Russian special services (Kommersant, February 27).

Splitting the trans-Atlantic unity and driving the United States away from Europe has been a longset goal in Russia's strategy, and its full-scale invasion of Ukraine is used as a lever for achieving this goal. The Kremlin, however, may be overcalculating the benefits of last Friday's meeting in the

White House to Moscow's narratives. It is convenient to dismiss Europe as a disunion with no security agency, but a different reality is taking shape faster than Moscow expects. This emerging Europe is vested in ensuring peace for Ukraine, and it is up to European leaders to demonstrate that the real barrier to lasting peace is not Zelenskyy's stubbornness, but Putin's insatiable pursuit to see Ukraine defeated.

To read the article on the Jamestown website, click <u>here</u>.

## FOREIGN POLICY & INTERNATIONAL RELATIONS

#### New Armenia-U.S. Partnership on Pause

Onnik James Krikorian

March 3, 2025

#### **Executive Summary:**

The Charter of Strategic Partnership between Armenia and the United States, signed in January 2024 under the thenoutgoing administration, aligns with Prime Minister Nikol Pashinyan's strategy to reduce Armenia's dependence on Russia, despite diplomatic Moscow's concerns and engagements following the signing.



(Source: U.S. Embassy in Armenia)

- The charter opens pathways for Armenia to modernize its nuclear sector, particularly by securing U.S. technology to replace its Soviet-era reactor by 2036, and strengthening Armenia's development of artificial intelligence (AI).
- U.S. cooperation in border security aims to counter illicit trade and re-exports, potentially reducing Russian influence while increased Armenian control over borders with Iran and Türkiye signals broader geopolitical realignment.

During a visit to Washington, D.C. on February 5, Armenian Prime Minister Nikol Pashinyan claimed that Armenia hopes "to open a new page in relations with the United States" (<u>Prime Minister of the Republic of Armenia</u>, February 5). This hope was in reference to the Charter of Strategic Partnership between Armenia and the United States signed on January 14 to strengthen bilateral relations (<u>Ministry of Foreign Affairs</u>, January 14). The signing of the charter occurred just days before the last administration left the White House.

The areas covered in the charter include economic and energy cooperation, defense and security, democracy and human rights, and cultural and education exchanges. It also came soon after the Biden administration decided to suspend a Strategic Partnership Charter between the United

States and Georgia signed in 2009 (<u>Civil Georgia</u>, November 30, 2024). This followed the contested parliamentary elections on October 26, 2024, and ongoing protests in Tbilisi (See EDM, <u>October 17, November 5</u>, 2024, <u>January 13</u>, <u>February 4</u>).

For Pashinyan supporters, the signing of the charter was an essential foreign policy success amid falling ratings and as he attempts to diversify Armenia's foreign policy relationships away from dependency on Russia. The charter also followed the Armenian government's green lighting of an ostensibly extra-parliamentary drive to move the country along the path of EU membership even if Brussels has not extended a hand to such an eventuality (Eurasianet, January 14; see EDM, January 28). The agreement institutionalized stronger links between the United States and Armenia despite Yerevan having also significantly benefited from the re-export of sanctioned goods from the West to Russia and vice-versa (Azatutyun, December 20, 2024).

No sooner had the U.S.-Armenia Strategic Partnership Charter been signed than Russian Foreign Minister Sergey Lavrov announced that his Armenian counterpart, Ararat Mirzoyan, would visit Moscow for talks for the first time since November 2023. Armenian analysts considered this a response to the charter. They believed Moscow sought clarification on Yerevan's intentions (Azatutyun, January 16). Mirzoyan called the talks with Lavrov "frank and constructive" (Asbarez, January 21).

Although a partnership commission to implement the charter's details is expected over the coming years, the charter could have immediate benefits for Armenia, including the need to replace its ageing nuclear reactor (see <u>EDM</u>, July 22, 2024). After a number of reactor lifetime extensions, Yerevan has until 2036 to replace the Soviet-era reactor (<u>World Nuclear Association</u>, accessed February 28). Pashinyan is known to be in favor of adopting U.S. technology, but that would require permission from the United States to export civilian nuclear technology abroad, including that integral to options from South Korea if Armenia chooses that (<u>Interfax</u>, January 16, 2024). The strategic charter includes reference to the 123 Agreement, which is necessary to allow the country to receive that technology (<u>U.S. Embassy in Armenia</u>, accessed February 28). Bordering Iran, this would also require Armenia to enhance border security to prevent the smuggling of nuclear technology and radioactive materials, including uranium.

There have been a number of alleged cases of uranium smuggling reported over the years, including in 2010 and 2016, though via Georgia (Radio Free Europe/Radio Liberty, November 17, 2010; Eurasianet, July 8, 2016). The United States is already cooperating on countering the problem, but more needs to be done (US Embassy in Armenia, June 21, 2016). It is also unclear where and how Armenia would obtain small modular reactor (SMR)-compatible nuclear fuel in the event of choosing a non-Russian reactor. Moreover, given that Armenia does not dispose of spent fuel itself, where and how it would be remains unclear.

Similar concerns exist specifically in the area of Artificial Intelligence (AI), which is also a component of the Strategic Partnership Charter. The U.S. company Nvidia is already eyeing establishing an AI supercomputing center in Armenia (<u>ArmenPress</u>, November 30, 2023). This is a notable step considering the sensitivity of AI technology transfer (<u>United Nations</u>, September 2024). Armenia may be perceived as an attractive partner despite the sensitivities of AI technology transfer. Possible reasons for this attraction are the fact that Nvidia Vice President Rev Lebaredian is an Armenian-American and Armenia has a reputation of technological prowess given its former status as the "Soviet Union's Silicon Valley" (<u>Caucasian Journal</u>, May 2022; <u>fDi Intelligence</u>, January 2023).

There is no doubt that border security plays a prominent role in the Strategic Partnership Charter. Even though some Armenian media and commentators believe this might concern the deployment of U.S. troops on Armenia's borders, this overlooks the more common definition of what border security cooperation usually entails. Countries, including the United States, define it as preventing the "illicit movement of weapons, drugs, contraband, and people, while promoting lawful entry and exit, and lawful trade" (Homeland Security, accessed February 28). The timing of the charter, however, has come when Armenia's border security issues are legitimate concerns. At the end of July, Russian Federal Security Service (FSB) border guards were removed from Yerevan's Zvartnots International Airport (see EDM, August 15, 2024).

Speaking on the move a day beforehand at a Senate Committee on Foreign Affairs hearing, then-U.S. Assistant Secretary of State for European and Eurasian Affairs James O'Brien claimed that their removal would allow for a reduction in re-exports to and from Russia, circumventing sanctions over Ukraine (see <u>FDM</u>, August 15, 2024). At the beginning of this year, Russian border guards were also removed from the checkpoint on the Armenia-Iran border. The FSB, however, continues to control the border itself, albeit now with the participation of Armenian National Security Service (NSS) border guards (see <u>FDM</u>, January 16). Even though it is unlikely that one day U.S. troops might replace Russia on that border, the charter nonetheless includes support for strengthening border security capacity. At the signing it was announced that a U.S. team is expected to arrive in Armenia "within weeks" though it has yet to do so. The charter also mentions the need to initiate a working group to strengthen enforcement of export controls for dual-use goods. This last point has also been a problem in the past (Azatutyun, May 17, 2002).

Increasing Armenian border guard capacity would inevitably lead to one day removing the FSB presence on Armenia's borders with Iran and Türkiye, as Armenian border guards have taken over responsibilities at Yerevan's airport and the checkpoint with Iran. Armenian Deputy Foreign Minister Paruyr Hovhannisyan confirmed this last month (<u>Armenpress</u>, January 24).

For the Armenian government, further improving ties with the European Union and the United States could boost Pashinyan's chances in the upcoming parliamentary elections next year (<u>Balcani</u>

<u>Caucaso</u>, February 3). Even if Iran says it is not concerned by the new agreement, Tehran's ambassador to Yerevan, Mehdi Sobhani, has since announced that Armenia and Iran are also working on a comprehensive strategic partnership (<u>Turan</u>, January 24; <u>Arka</u>, February 10). Pashinyan recently met with U.S. Vice President JD Vance, which, according to one Armenian political analyst, left a "bleak impression" (<u>Azatutyun</u>, February 7).

At the end of February, Armenian media stressed the precariousness surrounding the new administration in the United States by noting that the U.S. Customs and Border Protection team had still not arrived (ArmenPress, February 27). Officials claim it has not been canceled (Azatutyun, March 3). However, plans for a cyber-security laboratory have been suspended in the current 90-day freeze of USAID assistance worldwide. Armenia's Ministry of Internal Affairs stated that "no program or action stemming from the partnership is currently envisaged" (ArmenPress, February 27). While the new charter has provided conditions for positive bilateral relations between Armenia and the United States, Armenian officials appear uncertain about the next steps in bilateral relations.

To read the article on the Jamestown website, click <u>here</u>.

#### Russia Focusing on Arctic to Divide West and Expand Its Influence and Position in **Antarctica**

Paul Goble

March 6, 2025

#### **Executive Summary:**

Moscow views Arctic cooperation with the United States as a means of deepening the divide between Washington and Europe. The United States, conversely, views cooperation with the Russian Federation in the Arctic as a means of dividing Moscow and Beijing.



(Source: GoArctic, Valery Vasilevskiy)

- The Kremlin seeks to ultimately capitalize on rising Arctic temperatures in order to expand economic activities and propagate its military presence in the Arctic.
- Moscow has an interest in using changing international cooperation and competition in the Arctic as a precedent to also transform the international treaty governing the use of Antarctica and expand Russia's role on and around the continent.

At the Riyadh talks between Russia and the United States on February 18, U.S. representatives reportedly raised the possibility of expanding U.S.-Russian cooperation in the Arctic (see EDM, March 3; Vedomosti, Meduza, February 27). According to Kirill Dmitriev, head of Russian Direct Investment Fund (RDIF) who was involved in the talks, the two had a "general discussion-maybe joint projects in the Arctic. We specifically discussed the Arctic" (Interfax, TASS, February 19). This is intended by the United States as a "way to drive a wedge between Moscow and Beijing," particularly given their deepening partnership since Russia's full-scale invasion of Ukraine began (Bloomberg, February 26; Meduza, February 27).

Moscow welcomes cooperation with the United States for two main reasons. First, Russia has been facing problems in attempting to develop the Northern Sea Route (NSR) on the cheap due to sanctions restrictions, which U.S. cooperation may help to resolve (see EDM, May 6, 2021, February 18). Second, activities conducted by the People's Republic of China (PRC) in the Arctic exploit Russia's financial weaknesses and have created concerns in Moscow that Beijing may attempt to

become the dominant power in the region (see <u>EDM</u>, February 18). Moscow may view U.S. cooperation as a mechanism to counter Beijing's activities in this respect. The Kremlin also views such cooperation as part of its larger effort to deepen the divide between the Trump Administration and European leaders committed to the long-standing idea of keeping the Arctic out of international geoeconomic, geopolitical, and especially military competition (<u>NG.ru</u>, February 27). Additionally, any change in the United States' approach to the Arctic would likely serve as a precedent for Moscow to seek a transformation to the Antarctic Treaty of 1959 (<u>The Antarctic Treaty</u>, 1959 (also available with the <u>British Antarctic Survey</u>, accessed March 6).

Due to rising global temperatures, the Arctic affords both the potential extraction of mineral resources from its seabed as well as fish from its waters. The melting ice causes waterways to expand as an international transportation route, presenting new challenges and opportunities for Arctic littoral states (United States, Russia, Canada, Norway, and Denmark). In 1996, the Arctic Council was established by Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States to guide responses to this development by promoting cooperation and avoiding militarization and conflict (Arctic Council, 1996). Over time, the Council has granted observer status to other countries including the PRC who, in 2018 declared itself a "Near-Arctic State" (State Council of the PRC, January 2018; Arctic Council, accessed March 6). Original group members were conflicted over admitting the PRC into the Arctic Council as seven of eight members are part of the North Atlantic Treaty Organization (NATO) and the eighth, the Russian Federation, is not. China gained observer status in 2013 and Russia has pushed for a more enhanced position, but the other members have not gone along with what would have been a change in the organization's founding document (The Arctic Institute, June 6, 2023). In 2022, the seven NATO members limited the work of the Arctic Council to "projects that do not involve the participation of the Russian Federation" in response to Russia's full-scale invasion of Ukraine (Arctic Today, March 3, June 8, 2022). This prompted Moscow to condemn the Arctic Council and suspend its contact with other similar international groups and led Russian officials to develop plans to establish an alternative Arctic body that would include its allies (Window on Eurasia, June 26, 2022; The Barents Observer, September 18, 2023).

The divide between Russia and the West has only intensified following the divergence between Washington and Europe over the proper response to Russian actions (NG.ru, February 27). Moscow has recently announced an International Arctic Forum in Murmansk for the end of March that will likely be attended by Russian President Vladimir Putin and other senior Russian officials and likely is aimed at attracting non-NATO government representatives (Forumarctica.ru, accessed March 5). Whether there will be U.S. government representation is unconfirmed, but this is certain to be welcomed by Putin as it would signal further division between Washington and NATO (Interaffairs.ru, accessed March 5). Moscow certainly will portray the emergence of its own Arctic

Forum as the legitimate successor to the Arctic Council from which it has been suspended with Russian commentators already celebrating that possibility.

Moscow remains likely to, at the very least, rely on the use of U.S.-manufactured components to expand its oil and natural gas drilling in the Arctic, to seek benefits from PRC Arctic activities, especially in terms of countering Europe and the West, to continue its claims on the Arctic seabed, and to expand the NSR and Russia's military presence in the region (Window on Eurasia, February 25, 2023; IZ.ru, August 16, 2024; NG.ru, February 27). Regardless of how much assistance Moscow may receive from the U.S., these developments will redefine the nature and impact of Russia's Arctic presence.

One such area is Antarctica. Although distant geographically from Moscow, Antarctica has been a point of interest and regular activity by Russia for years (Interaffairs.ru, accessed March 5). Shifts in the Arctic are certain to hold implications for international activity and engagements in the southernmost continent as well, where military activity, disposal of nuclear waste, and economic endeavors such as mining are among the activities banned according to the Antarctic Treaty of 1959 (The Antarctic Treaty, 1959). The Treaty functions as a guide and restraint for international activity in Antarctica, particularly in assuring that "Antarctica shall be used for peaceful purposes only" (Article I, The Antarctic Treaty, 1959). Russia has long linked its activities in the Arctic with its goals toward the Antarctic (see EDM, June 9, 2020, June 24, 2020, November 19, 2020, August 13, 2024; Window on Eurasia, July 15, 2022). This linkage has received particular emphasis recently as Moscow celebrates the 105th anniversary of Russia's Arctic and Antarctic Institute (AARI) (NTV.ru; Lentv24.ru, March 4; AARI, accessed March 6). In recent months, Moscow sent clear signals that its attention to Antarctica and its focus on the Arctic are simultaneously rising. In 2024, Putin announced Russia's exploration of oil reserves in Antarctica after Russian drillers discovered a field equivalent to 511 billion barrels of oil (see EDM, August 13, 2024; Glavny.tv, July 21, 2024). On March 3, the director of AARI, Alexander Makarov, announced the expansion of Russia's Russkaya station (*Pycckas*) in West Antarctica to a year-long operation and ongoing discussions about the location for a new station (Progorodspb.ru, March 3). Earlier this year when U.S. President Donald Trump proposed the U.S. acquisition of Greenland or even Canada, rumors swirled in Moscow that Putin would respond by visiting Antarctica (Window on Eurasia, January 10).

Moscow would certainly benefit from a U.S. tilt toward Russia vis-a-vis sanctions lifting and resisting PRC influence in the Arctic. At the same time, however, the Kremlin will likely seek to balance continued Chinese support for Arctic development while exploring new opportunities to expand its presence in Antarctica and adjoining waters. The Kremlin's moves in Antarctica could have more serious consequences for the United States than for the PRC-especially if Moscow is able to ramp up the development of its navy and merchant marine capabilities (Window on Eurasia,

August 17, 2024). Effective Western policies on the Arctic must reflect both these changing geopolitics of the region as well as Moscow's potential and stated intentions toward the opposite pole.

To read the article on the Jamestown website, click <u>here</u>.

### Energy & Economics

#### Russia Experiences Reverse Industrialization as Economy Deteriorates

Hlib Parfonov

March 4, 2025

#### **Executive Summary:**

The Russian economy appears to be experiencing "reverse industrialization," shifting from the development of hightechnology industries to labor-intensive sectors. This trend is negatively impacting Russia's industrial output and economic development.



(Source: Ministry of Education of Russia)

- Russia's industrial growth is uneven, with the military-industrial complex showing the most growth while civilian sectors stagnate. Russia's ongoing full-scale invasion of Ukraine is draining the workforce, particularly as conscription is expanded.
- There are more job vacancies than skilled employees in Russia due to the surplus of graduates in subjects such as humanities and social sciences and the shortage of technical and specialist graduates.
- Kremlin reforms that attempt to align the education system with labor market demands are raising concerns from students and families about fairness and quality of training. These changes are reshaping Russia's economic and social landscape in ways that may be difficult to reverse.

On February 6, Russian President Vladimir Putin stated that it is necessary to limit student enrollment in unproductive specialties. At a meeting of the Council for Science and Education, Putin argued that the recruitment for specialties that do not fulfill demands in the economy and the labor market must be reduced. Preventing non-specialist educational institutions from teaching specialist courses is also important, according to Putin, in order to avoid low training standards

(Kremlin.ru, February 6). This development is the result of "reverse industrialization" (обратная индустриализация, obratnaya industrializatsiya), a trend that has been unfolding in Russia for a few years now. Reverse industrialization refers to economic development that departs from the production of high-technology and reverts instead to the growth of labor-intensive sectors (RIA Novosti, April 21, 2022). This phenomenon is associated with a reduction in the share of high-tech industries and an increase in employment in sectors that demand low-skilled manual labor. According to analysts from the Bank of Russia, after an initial downturn in production and gross value added, a "reverse industrialization" phase may follow, characterized by the development of less advanced technologies and partial import substitution. Such products' technical and economic efficiency, however, may be inferior to that of modern counterparts (RIA Novosti, April 21, 2022).

#### **Industrial Production**

Russia's industrial production was uneven throughout the course of 2024. According to the Centre for Macroeconomic Analysis and Short-Term Forecasting (CMACF), after growth in production in the first quarter of 2024 and a sharp surge in May, a negative trend emerged in the second half of the year. Production volume fell by 1.5 percent in June as compared with the previous month, and in July it declined further by 0.8 percent (Forecast.ru, October 10, 2024, February 6).

The primary contribution to Russia's growth in production comes from the military-industrial complex, while civilian sectors are showing signs of stagnation (see EDM, July 10, 25, 2024). Oil refining, metallurgy, and the production of manufactured goods is growing in spurts rather than as a sustained trend (see EDM, April 29, 2024). In December 2024, industrial output showed significant growth, primarily driven by the military-industrial complex and the pharmaceutical sector, whereas other sectors developed more slowly (Forecast.ru, February 6).

Russia's industrial sector faces numerous challenges in the year ahead. The main challenges include limited growth rates outside the military industrial complex, a decline in domestic consumer demand, problems with the import of equipment and technologies, and a shortage of skilled personnel, which constrains future expansion of production. One key factor limiting the growth of industrial production is the acute shortage of qualified workers and technical specialists (see EDM, June 27, 2024). According to CMACF, in 2024, 40 percent of enterprises identified a personnel shortage as the primary problem in the industry (Forecast.ru, October 10, 2024, February 6).

The Russian labor market is not in a position conducive to growing productivity. It is experiencing historically low unemployment at 2.5 percent. The tightness ratio (the number of unemployed individuals per job vacancy) of the labor market has fallen to about 0.2 or 0.3 as of June 2024, meaning that there are fewer than one applicant for every vacancy. The most acute shortage of

personnel is observed in the industrial manufacturing, construction, transport, and IT sectors (<u>Forecast.ru</u>, October 10, 2024; see <u>FDM</u>, February 27).

#### **Education Fairness vs Needs of the Economy**

Meanwhile, a structural imbalance persists between graduates of educational institutions and the needs of the economy. There is a shortage of workers with technical education (engineers, welders, computer numerical control (CNC) operators, technologists) and an oversupply of humanities specialists, including economists, lawyers, managers, and other professionals (Forecast.ru, October 10, 2024, February 6). The Russian industrial sector faces a double challenge consisting of a shortage of skilled personnel—which in turn constrains the expansion of production—and an imbalance in the labor market that exacerbates said problem.

The fall in unemployment correlates with recruitment into the Russian Armed Forces on a contract basis (see EDM, <u>April 29</u>, <u>June 27</u>, <u>September 9</u>, 2024). By the end of 2024, approximately 450,000 people had signed a contract with the Ministry of Defense, and another 40,000 had joined volunteer formations (<u>RBC</u>, January 24). This means that Russia's full-scale invasion of Ukraine may be having a directly negative effect on unemployment rates in Russia.

The lack of skilled professionals in Russia's workforce also correlates to challenges in Russia's education system. The issue of Russian students' progression from years 9 to 10, lower secondary education to upper secondary education (typically ages 16–18), has become particularly acute. Parents across the country complain that due to the introduction of new standards and intensified competitive selection, many children are forced to leave school and attend colleges (institutions that focus on vocational and technical education), which often entails additional financial costs (Izvestiya, August 15, 2024). According to Russian news outlet RBC, in Chelyabinsk oblast, refusals to enroll pupils in year 10 have become commonplace; this is likely representative of the state of other regions as well (RBC, August 26, 2024). In some cases, experts note that even when free spots are available, schools actively turn down pupils by offering them alternative options to study in colleges. This creates additional pressure on family budgets and raises concerns regarding equal access to free secondary education (Mel.fm, August 1, 2024). Posts in the Telegram channel "Parents of Moscow," demonstrate how parents are forced to approach education departments or even lodge complaints with the prosecutor's office to secure their children's right to free secondary education when admittance to 10 is denied (Mel.fm, August 1, 2024; <u>Telegram/@roditelimoskvynews</u>, accessed February 28).

The reforms also affect higher education. Changes to the status of the Basic State Exam (OGE, Основной государственный экзамен; ocnovnoi gosudarstvennyy ekzamen)—which is to be transformed from a graduation exam into an entrance test administered alongside the Unified State Exam (EGE, Единый государственный экзамен; yedinyy gosudarstvenyy ekzamen)—have

raised concerns about the potential transfer of negative examination procedures into secondary schools. Experts note that whereas attendance in university was once considered an end in itself, the question remains of whether all students should advance to year 10 if their exam results do not guarantee future professional suitability, especially as the selection system becomes increasingly stringent. Statistics indicate a decline in the proportion of pupils advancing to year 10—from approximately 67 percent in 2000 to 48 percent in 2022—and further reductions are predicted, which does not correlate with the needs of the labor market, at least with regard to science, technology, engineering, and mathematics-related degrees (Vogazeta, April 22, 2019; Kommersant, May 15; Silkbox, May 21; Mel.fm, August 2, 2024).

Reforms in the education sector reflect the Russian state's desire to meet the demands of the modern economy. Namely, this means reducing the number of specialists with outdated skills and steering young people toward more in-demand professions. Extreme measures in education raise questions about the balance between protecting students' rights and fulfilling state obligations. These measures demonstrate how difficult it is to implement profound reforms in a system where economic realities and educational principles are in constant conflict (RBC, August 26, 2024, February 7).

The educational changes in Russia are not merely an attempt to modernize the system but constitute a complete strategic restructuring in which the state aims to align educational standards with the market's needs. In practice, however, numerous problems arise, including difficulties with enrollment in year 10 and severe sanctions imposed on graduates who refuse to work in hazardous regions, such as Mariupol in occupied Ukraine (<a href="The Insider">The Insider</a>, February 7). These developments underscore that reforms are inevitably accompanied by conflicts of interest, with some parties insisting on strict measures while others demanding the protection of citizens' rights and safety (<a href="RBC">RBC</a>, August 26, 2024; <a href="The Insider">The Insider</a>, February 7).

#### **Enforcing Student Success**

Data from Russian news outlet RIA Novosti indicate that the percentage of pupils successfully passing the OGE has increased significantly in recent years (<u>RIA Novosti</u>, February 4). On the one hand, this rise may reflect an improvement in the quality of student preparation. On the other hand, it raises questions regarding the exam's difficulty level. A high pass rate may suggest that the current testing system is not always capable of adequately assessing a pupil's knowledge, which could negatively impact the training of future specialists (<u>RIA Novosti</u>, February 4).

Materials from Russian outlet Interfax provide further details of the new control mechanisms that have been introduced as part of the reform of the OGE procedures (Interfax, February 6). These measures entail stricter supervision over the process of checking exam results, as well as increasing the accountability of examiners for the accuracy and objectivity of their assessments.

The changes are aimed at eliminating possible errors in the calculation of scores, which should enhance the reliability and fairness of the final results (<u>Interfax</u>, February 6).

An explanatory note published on the Public Committee for Family Protection (OUZS) Educational Department's website provides an explanation of the procedure for conducting final state examinations and the processes for admitting pupils to educational institutions. The document contains recommendations on recording exam results and the methods for calculating scores, which helps schools adhere to uniform assessment standards and allocate places in year 10 fairly (Ouzs.ru, January 22). These clarifications are especially pertinent in light of the current reforms, as they provide a legal basis for the transition to the new assessment system.

The changes in the OGE system and the procedures for admission to year 10 are part of a large-scale strategy to modernize Russia's educational system. While the reforms aim to increase the objectivity and quality of assessing pupils' knowledge, they also give rise to new challenges, such as the tightening of competitive criteria and the risk of restricting access to free education. All of these measures reflect the state's attempt to synchronize educational standards with the needs of the modern economy. The reform process, however, is fueling debates among educators, parents, and experts, highlighting the difficulty of balancing an efficient educational system and protecting citizens' rights.

#### Conclusion

As the Kremlin attempts to resolve conscription and recruiting problems for the military in its full-scale invasion of Ukraine by expanding eligibility for service, this comes at the cost of further draining Russia's workforce (see <u>EDM</u>, November 19, 2024). At the same time, efforts to increase the number of specialized professionals by reforming the education system are presenting their own adverse effects on perceived fairness toward students. The ongoing reverse industrialization that is exacerbated by these changes is altering Russian society and the economy in such a way that may prove irreversible.

To read the article on the Jamestown website, click **here**.

## CLIMATE & ENVIRONMENT

#### Rising Arctic Temperatures Threaten Russian Cities and Military Facilities in Far North

Paul Goble

March 4, 2025

#### **Executive Summary:**

Russian The North is negatively impacted by climate change at a rate that is three times faster than in the south. The thawing permafrost, faltering infrastructure, and isolation of the population centers and military bases in Russia's North place additional requirements on Moscow attempts to sustain Northern Sea Route activities and its own Arctic ambitions.



(Source: TASS)

- This problem has grown worse since Russia's full-scale invasion of Ukraine, which has forced Moscow to delay or cancel plans to repair and build more road and rail infrastructure in the North at a time when rivers in many parts of the region no longer freeze hard or long enough to serve as ice roads.
- These developments, in turn, have been exacerbated by the "Atlantification" of the Arctic, meaning Russia now faces greater competition, as the Arctic Ocean itself is ice-free longer each year, allowing foreign vessels to transit without relying on Russian icebreakers.

Temperatures in the Russian North are rising three times as fast as in other parts of the country, a development with enormous but as of yet not fully appreciated geoeconomic and geopolitical consequences. These changes are increasing the ability of other countries to transit the Northern Sea Route (NSR) without relying on Russian icebreakers. Critically, rising temperatures are thawing the permafrost underlying the whole region, in turn undermining and destroying the integrity of local infrastructure, including pipelines and airfields. Rising temperatures are also further isolating population centers and military bases, making it far more difficult for Moscow to exploit natural

resources and sustain Russian dominance of the NSR and the country's claims in the Arctic (see EDM, November 15, 2022, February 22, 2023; The Barents Observer, May 18, 2022; To Be Precise, September 22, 2023; TASS; RIA Novosti, September 11, 2024; The Moscow Times, September 12, 2024). While Moscow celebrates what it has achieved—and often even what it has not—the situation in the North is a quickly escalating problem for the Russian government (Window on Eurasia, January 10).

Russia's full-scale invasion of Ukraine has forced Moscow to cut back and even cancel plans to build railways and highways in the Russian North (see EDM, February 22, 2023). At present, the region severely lacks sufficient road and rail infrastructure. Communities living in the North have instead traditionally relied on "ice roads," which are formed when rivers freeze, for delivery of supplies and to transport ores of various kinds. Ice roads, however, can no longer be relied on because the surface of many waterways is not remaining frozen long enough or becoming thick enough to carry heavy trucks (see EDM, March 12, 2024; Nakanune, January 28, February 20; The Barents Observer, February 25). This issue is exacerbated by what some scholars are now calling the "Atlantification" of the Arctic. This refers to the influx of warm water from the Atlantic Ocean into the Arctic Ocean, which is itself caused by the increasing amount of sea ice melting in the Arctic from Scandinavia to the Bering Strait (Igor V. Polyakov et al., "Atlantification advances into the Amerasian Basin of the Arctic Ocean," Science Advances. Vol 11, No. 8 (2025); The Barents Observer, February 25). This trend affects not only the ocean and global weather patterns but also the life of population centers and military bases in northern Russia's littoral regions.

In a growing number of places in the region, the only reliable means of transport is by air. This, however, is a serious limiting factor given the carrying capacity of planes, closing of airports in the region, and inadequate roads and rail lines connecting to them. As Sergey Sulyma, a Russia historian who specializes in transportation issues, points out, Russian officials like to brag that jet planes have reduced the time it takes to get from Moscow to Chukotka, located in the extreme northeast of the Russian Federation, to only eight hours (REX Information Agency, February 10). This claim omits the fact that it takes days or even weeks for passengers and cargo to travel to and from the airport in Chukotka because of the absence of year-round roads (REX Information Agency, February 10). These delays mean that the region is not reliably supplied with goods, which has unsurprisingly led to a slow but steady emigration out of Chukotka (see EDM, July 6, 2021; Nakanune, January 28, February 20). This trend, broadly mirrored across the Russian North, makes it almost impossible to maintain the development of natural resources, the maintenance of NSR-related search and rescue institutions or guidance facilities, or the support of military facilities Moscow needs to project power further into the Arctic.

Insufficient highways and rail lines represent only one example of the failure of the Russian government to support regional infrastructure in the North. Another problem involves pipelines.

The shifting ground with the melting of permafrost has caused pipelines to fail, spilling their contents and even leading to their abandonment on occasion, as continuous repairs are too expensive. This means oil and gas recovered in the Russian North often does not reach the central areas of Russia where they can be used or exported. In turn, population centers and military bases in the Russian North do not receive a steady supply of the petroleum products they need. Russian officials have long been worried by this fact and in 2017 prepared a 900-page report detailing just how dire the situation had become (Ministry of Natural Resources and the Environment of the Russian Federation via Web Archive, 2018; The Barents Observer, October 2, 2018; Window on Eurasia, October 2, 2018). There is no reason to think that the situation has improved since then, and every reason to believe that it has gotten worse as the topic appears to have become politically sensitive in Moscow.

The impact of global warming on the Arctic Ocean and Russian littoral is especially great with regard to Russian military facilities in the region. Putin has an expansive plan to develop the Arctic seabed and has made claims to portions of the Arctic that are contested by other Arctic states. These claims remain under consideration at the United Nations vis-a-vis its Law of the Seamandated process (Window on Eurasia, August 25, 2022, December 27, 2023). Putin's efforts to develop Russia's military bases in the North in accordance with his Arctic aspirations have been largely constrained. This is due to the high costs and difficulties of transporting supplies to such facilities, on top of the problems which Russia is experiencing in shipbuilding for its Arctic Fleet (Window on Eurasia, January 19, 2022). Moscow has, as a result, cut back and sought cheaper means of projecting power by building low-cost drone bases and potentially exploring options to purchase ships from elsewhere (see EDM, July 6, 2021, April 18, 2024; , October 15, 2023, October 26, 2024).

As Russia's Arctic territory continues to warm, the combination of its impact on the ocean and the littoral will only intensify. With less ice on the Arctic Ocean, more ships from other countries will likely make use of the NSR or regions adjoining it, creating a situation in which Moscow will feel even more threatened and prepare to be in a position to respond militarily (Window on Eurasia, August 6, 2024). With higher temperatures on land in the Russian Far North, however, Moscow will find it increasingly difficult to implement such a policy, given the unlikelihood of having either the necessary population or military bases in the region. Moscow will thus likely be inclined to adopt a more aggressive approach to any new international presence in the region, potentially by employing forces further from the Arctic itself (see EDM, May 30, 2024). Such a shift in Russian strategy and tactics will require corresponding shifts by others as the Arctic heats up—both literally and figuratively.

To read the article on the Jamestown website, click here.

# TECHNOLOGY & INNOVATION

#### Roscosmos's Director General Exemplifies Inefficiency in Russian Government

Mikael Pir-Budagyan

March 6, 2025

#### **Executive Summary:**

- Roscosmos, Russia's state-owned space corporation, struggles with financial difficulties, inefficiencies, and the loss of Western partnerships despite preeminent role in Russia's space and defense sectors.
- Russian President Vladimir Putin's appointment of Dmitry Bakanov as Roscosmos's Director General is part of Russia's broader push to enhance efficiency across multiple sectors.



(Source: Roscosmos / Global Look Press)

Entrenched bureaucracy and systemic issues could hinder meaningful progress in potential reform based on Bakanov's initial personnel changes.

On February 6, Russian President Vladimir Putin appointed Dmitry Bakanov to replace Yuri Borisov as the Director General of Roscosmos, Russia's state-run space corporation (President of Russia, February 6). Bakanov's appointment is intended to remedy debilitating challenges at Roscosmos, including financial difficulties, inefficiencies, and the loss of Western partnerships since Russia's full-scale invasion of Ukraine.

This change in Roscosmos leadership signals a shift in the organization's commercialization direction. Previous Roscosmos leaders included Dmitry Rogozin and Borisov. Bakanov's appointment indicates Russia's priorities in space and follows a series of promotions that have given economists and auditors greater influence than politicians or military leaders over strategic sectors, including defense and space. Bakanov is tasked with addressing long-standing procurement inefficiencies and making the corporation more attractive to private investors. As director general, Bakanov is also required to collaborate closely with Russia's Ministry of Defense

on space-based Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) capabilities.

Roscosmos State Space Corporation, established in 2015, emerged from a comprehensive restructuring of Russia's Federal Space Agency (Roscosmos, accessed via Web Archive on March 4). As Russia's premier space organization, it serves as both a state corporation and a government agency. Roscosmos's role in supporting Russia's military capabilities is difficult to overstate as a key procurement source for the Ministry of Defense (Armaments and Economy, 2023; also available at Viek). The corporation produces rockets, spacecraft, and satellite systems, including the USSR-designed Soyuz (Roscosmos, accessed March 3; Interfax, December 21, 2021). Roscosmos controls eight percent of the Russian military-industrial market, three percent more than Rosatom, Russia's state-run nuclear energy firm (Armaments and Economy, 2023).

Roscosmos inherited a complex bureaucratic structure from its Russian and Soviet predecessors. It has struggled to commercialize projects and has consistently depended on government financing. Over the years, multiple projects failed to attract sustainable investment outside the government and defense sectors, such as the Angara-5 rocket, which was reportedly too expensive for commercial use (RussianSpaceWeb.com, August 1, 2017).

Unlike Rosatom, the state-owned nuclear corporation, Roscosmos has faced staunch criticism for wasteful spending and inefficiencies throughout the procurement process (Armaments and Economy, 2024). Inefficiencies in Roscosmos's procurement from 2011 to 2015 included contracts being awarded to sole suppliers, inflated procurement costs, and excessive overhead expenses. Some contracts had unjustified price increases, and high overheads were used to cover unrelated expenses, raising concerns about mismanagement and lack of production capacity. For example, in the purchase of seven Gonets-M satellites from the Russian satellite manufacturer ISS Reshetney, overpricing amounted to an estimated 360 million rubles (nearly \$4 million) (Vedomosti, July 29, 2015). Likewise, in the procurement of four Proton rockets, overhead expenses were 3.5 times higher than the fund for employees' wages, indicating either inefficiencies or potential misallocation of funds, or both. (Vedomosti, July 29, 2015). Roscosmos has also been scrutinized over numerous corruption scandals involving its senior staff, with more than 15 criminal cases opened against the corporation in 2019 (TASS, November 28, 2019). Russia's current Minister of Defense and former economic aide to President Vladimir Putin, Andrey Belousov, criticized Roscosmos in 2017 for wholly relying on the state budget and operating virtually without profit (RBC, December 12, 2017).

Financing shortages have led to attempts to attract private investment by allowing Roscosmos to issue bonds (<u>TASS</u>; <u>President of Russia</u>, December 28, 2024). Since 2022, Roscosmos has reportedly lost 180 billion rubles (\$1.95 billion), primarily due to the termination of contracts with Western

partners in the wake of Russia's invasion of Ukraine (<u>Interfax</u>, August 5, 2024). In December 2024, then-Director General Borisov argued that the corporation would become profitable by the end of the year, in part through new contracts with countries like India, China, Iran, Algeria, and South Africa (<u>TASS</u>, December 24, 2024). The sustainability of Roscosmos's financial recovery remains uncertain, particularly given Russia's international isolation, the ongoing sanctions regime, and the broader challenges facing Russia's space sector.

Remote-sensing satellites are considered particularly lucrative for private investment as operators sell high-resolution imagery and geospatial data to clientele including government agencies and defense contractors (GLONASS, October 24, 2024). In April 2024, the Russian State Duma passed legislation allowing Roscosmos to commercialize its satellite imagery and data services, marking a shift from its long-standing practice of providing these resources free to government clients (Russian State Duma, April 9, 2024). After less than a month since his appointment, Bakanov proposed new space projects together with Belarus, including on integrating Russian-Belarusian remote sensing satellite systems through the Union State (RGRU, March 5).

Roscosmos also recently announced the start of the "Development of a multi-satellite orbital group" project tasked with creating a group of 650 satellites by 2023, excluding commercial satellites (<u>TASS</u>, January 28; <u>TAdviser</u>, January 28). According to Borisov, this project will strengthen Russia's position in space and enable the industry to ensure Russian technological sovereignty in this field as each satellite will become "the eyes, ears, or voice of Russia in space" (<u>Izvestiya</u>, January 28).

This project aligns with Putin's prioritization over the years of the creation of an orbital satellite constellation. In 2024 he explained that "failures" in the creation of a satellite group for communications, television, and radio broadcasting "cannot be allowed under any circumstances" (RIA, December 5, 2024). This echoes Putin's statement from 2013 that "[o]nly a balanced group of military and dual-purpose satellites can help us achieve the results we need" (Kremlin.ru, November 29, 2013). According to Putin, these results include advanced technology that meets "today's needs and tomorrow's warfare methods" as the "Armed Forces will be of little effect without [communications, navigation, intelligence, and target-setting] support from space" (Kremlin.ru, November 29, 2013).

Progress toward creating this satellite group signals that the Russian satellite industry may reverse its ongoing struggle to keep up with U.S. and Chinese competitors. As of January 1, Russia has 307 satellites in space (when including remote-sensing satellites), which pales in comparison to the United States's 8,393 satellites (BBC Russian Service, January 28). Establishing a market for private satellites has proven to be a pressing challenge. Borisov admitted that Roscosmos's efforts to garner non-state firms' interest had been unsuccessful, suggesting that "[u]ntil ... the investor sees

direct benefits, you can give him a kick in the pants, you can give him anything, he still won't [invest in private satellites]"(RBC, February 14, 2024). While there are currently eight private firms that have expressed interest in working with Roscosmos on the basis of a government contract, Roscosmos must build trust with investors to attract greater investment and expand the private side of the Russian space sector.

Bakanov has extensive experience managing satellite technology in both public and private sectors. Prior to his appointment, Bakanov served as chairman of the board of GLONASS, a Russian satellite-based navigation system that provides positioning information analogous to Western GPS. From 2011 to 2019, he was CEO of the Roscosmos communications satellite subsidiary "Gonets," which was partially owned by private companies (Kommersant, March 3, 2018). The Kremlin appears to hope that Bakanov's leadership will be a strong enough signal to incentivize greater private investment in space, given his track record of working with the private sector (RBC, February 6).

Bakanov's appointment highlights another trend: the rise of auditors to positions of power, particularly those with ties to the military. With Russia's full-scale invasion of Ukraine eroding scarce resources, the Russian government seeks to address inefficiencies across multiple sectors, including space projects (RBC, February 6). A notable example is current Minister of Defense Andrey Belousov, who was formerly Russia's minister of economic development (Government of Russia, accessed March 5). Belousov was appointed to replace Sergei Shoigu in May 2024, likely intended in part as a response to a series of corruption scandals in the Ministry of Defense, including figures like Deputy Defense Minister Timur Ivanov (see EDM, May 16, 2024). At Sitronics, an IT company, Bakanov rose from audit specialist to head of the firm's procurement department during 2008–2011 (Izvestia, February 6). Most recently, he led efforts to establish the National Digital Transport and Logistics Platform (GosLog) to increase efficiency in the transportation sector by digitizing and unifying the bureaucratic process involved with managing logistics for all companies involved with rail, aviation, and maritime transportation (AK&M Information Agency, March 5).

Immediately after his appointment, Bakanov took actions reminiscent of Belousov's large-scale personnel overhaul in the defense ministry (RTVI, May 22, 2024). Bakanov dismissed two deputy directors and the head of Roscosmos's research institute, TsNIIMash. Bakanov also fired Dmitry Yermyenko, head of NPO Lavochkin, a major space manufacturer and a key satellite technology supplier. The official press release framed these changes as necessary to align the management team with the industry's current goals and priorities (Telegram/@roscosmos gk, February 14).

Roscosmos's entrenched inefficiencies, financing shortages, and loss of access to Western partnerships due to Russia's full-scale invasion of Ukraine cast doubt on the success of Bakahnov's

reforms. The effectiveness of these reforms to remedy the long-standing challenges at Roscosmos may come too little, too late.

To read the article on the Jamestown website, click <u>here</u>.

## Influence Operations

#### Georgia Remains Target of Attempted Russian Influence

Zaal Anjaparidze

March 5, 2025

#### **Executive Summary:**

Georgian Prime Minister Irakli Kobakhidze acknowledged challenges in Georgia-EU relations in early February, citing bureaucratic obstacles, reaffirming Georgia's pro-European stance despite concerns that the current ruling party is leading the country toward Russia and undermining democratic principles.



(Source: Wikimedia Commons)

- Political turbulence in Georgia following its October 2024 parliamentary elections provides Russia with more resources to impede Georgia's integration with the West.
- Moscow is leveraging economic, political, and ideological pressure to expand its influence in Georgia. This includes strengthening economic ties, exploiting Orthodox unity, and supporting pro-Russian narratives.
- Georgia remains economically reliant on Russia in terms of trade, gas imports, and investments. This dependence grants Moscow significant political leverage, creating vulnerabilities to Russian pressure.
- Western sanctions on Georgia risk fueling anti-Western sentiment and pushing the country further into Russia's orbit. Georgia's integration with the West, particularly with the European Union, will remain in jeopardy as long as the political status quo is maintained.

In a February 6 interview with Euronews, Prime Minister of Georgia Irakli Kobakhidze admitted to complicated relations between Georgia and the European Union, attributing this to "significant challenges with the European bureaucracy" (Euronews, February 6). Kobakhidze still expressed

optimism, however, about Georgia's prospects for EU membership and reaffirmed the unshakable pro-European orientation of Georgia and its government. In the same interview, he vehemently excluded the possibility of restoration of diplomatic relations with Russia until the latter withdrew its recognition of Georgia's secessionist regions Abkhazia, which recently held presidential elections, and South Ossetia as independent states (Euronews, February 6; see EDM, February 12). These statements were a response to reprimands from the West that Georgia is deviating from its former European trajectory. There remains a growing perception in both Georgia and Europe that the former is drifting away from the West and democracy in favor of growing closer to Russia (1tv.ge, January 18; Civil.ge; PACE, January 29; Eeas.europa, February 7).

These concerns have been reinforced by the Georgian leadership's multi-vector foreign policy in recent years, which includes building, as Georgian officials claim, "pragmatic relations with Russia." This, in turn, has been increasingly welcomed by the Kremlin (Civil.ge, April 18, 2024, February 4; Sakartvelos Ambebi, November 28, 2024). Supposedly, Moscow perceives such a policy in Tbilisi as a window of opportunity to restore its influence in Georgia (see EDM, February 6). This poses a challenge for the West as it seeks ways of counteracting Russia's attempts to influence democratic processes abroad (VoxEurop English, July 25, 2024; Congressional Research Service, September 4, 2024; Voice of America, January 18). The results of the 2024 parliamentary elections in Georgia disappointed the West because the ruling Georgian Dream party retained power for a fourth term. Hungary and Slovakia are the only European countries that have recognized the legitimacy of the elections (Jam-News, November 3, 2024; Euractiv, December 17, 2024). Meanwhile, Russian political circles assessed the elections as protecting Georgia's sovereignty, which was supposedly threatened by the West, and accused Western countries of "blatant attempts" to interfere in the elections (TASS, October 15, 2024; Gazeta.ru, October 29, 2024).

Russia reacted calmly to the crushing defeat of the 28-member union of openly pro-Russian parties in the election. Collectively, these groups gained only 2.4 percent of the vote, well below the 5 percent threshold required to win any seats in parliament (Civil.ge, October 27, 2024). The electoral result, however, allowed them to receive budget financing and stay afloat (Sputnik-Georgia, June 24, 2024; Election Administration of Georgia, October 27, 2024). The most proactive local pro-Russian TV channel "Alt-Info" has already resumed broadcasting, which had been suspended after the elections (Civil.ge, October 29, 2024; Alt-Info, accessed March 1).

The periodic allegations about behind-the-scenes communications between Russia and Georgia, as well as suggestions that the founder and now honorary chairman of Georgian Dream, Bidzina Ivanishvili, is under pressure from Moscow have yet to be confirmed by reliable data. Ivanishvili, an oligarch who made his fortune in Russia, has been subject to sanctions for his alleged role in making Georgia more susceptible to Russian influence (see <u>EDM</u>, January 23). Officially, the

bilateral dialogue between Georgia and Russia known as the Prague Format has been frozen since November 2021 (<u>Civil.ge</u>, December 3, 2024). So far, the parties have not shown readiness for its resumption (<u>Agenda.ge</u>, November 17, 2017).

Russian officials and pro-Kremlin expert circles saturate the Georgian information space with statements about Moscow's desire to restore relations with Tbilisi on Russian terms (TASS, December 4, 2024; Apsny.ge, February 10). When speaking in favor of the further normalization of relations with Georgia, which severed formal diplomatic ties with Moscow following the Russian invasion in 2008, Russia's Deputy Foreign Minister Mikhail Galuzin reaffirmed that Russia adheres to the same approach as with Ukraine. Galuzin noted that while Russia "intend[s] to continue to promote the normalization of ties with Georgia," Moscow understood that "political demands" in Tbilisi "that conflict with the new realities in the region" (i.e., Russia's recognition of the independence of the two separatist regions, Abkhazia and South Ossetia) make this all but impossible (TASS, February 10, 2024). Shortly before the Georgian parliamentary elections, Russia officially declared that the recognition of the independence of Georgia's secessionist regions by Moscow "is not subject to revision" (Gazeta.ru September 24, 2024; Interfax October 4, 2024). For some, this refutes the local allegations that Russia attempted to improve Georgian Dream's electoral standing by promising to restore Georgia's territorial integrity. Russia's reluctance to resolve this key problem in bilateral relations significantly weakens the positions of pro-Russian forces when they advocate for a more loyal policy toward Russia and further alienation from the Western orbit.

The Russian National Research Institute for the Development of Communications (NIIRK), which annually monitors the relationships of the post-Soviet countries, released its observations on the "friendliness of communication of the post-Soviet regimes in 2024." It concluded that fears of the post-Soviet countries coming under Russian influence, which they allege are instigated by the West, are gradually diminishing thanks to a better "understanding by national elites of geopolitical and geo-economic interests of both Western states and their interests in the context of benefits and risks of cooperation with Russia." According to NIIRK's research, in 2024, Georgia's "friendliness" coefficient toward Russia increased from 12 to 15 points on a 100-point scale. Georgia has been included as number eleven in the group of conditionally friendly/unfriendly Post-Soviet countries, whereby South Ossetia is ranked first (not internationally recognized as an independent state), Belarus second, and Ukraine is ranked last (Nicrus.ru, February 26).

Another manifestation of Russian hybrid warfare is a targeted intimidation of Georgian society by proclaiming that the West was trying to support yet another "color revolution.". This task appears to have been primarily assigned to the Russian Foreign Intelligence Service (SVR), probably with the expectation that its information would be perceived as reliable. During July–September 2024, the SVR made several statements accusing the United States of planning "regime change" in

Georgia through a "color revolution" with proactive engagement of opposition parties, non-governmental organizations (NGOs), and even international organizations such as the Office for Democratic Institutions and Human Rights (ODIHR) of the Organization for Security and Cooperation in Europe (OSCE) (SVR, July 9, September 11, 2024). Russian propagandists tried to convince the local population that the West wanted to reshape the results of the Georgian elections (Gazeta.ru June 6, 2024; RIA Novosti, December 10, 2024; TASS, December 30, 2024). According to the SVR, the United States planned to depict the elections as rigged as a pretext to encourage Georgian citizens to protest (SVR, September 11, 2024). These SVR reports, widely disseminated by the Georgian media, appear to have influenced a significant share of the Georgian public. After the elections, the SVR claimed that the Western plans for a "color revolution" in Georgia had failed, and that the United States was losing the initiative in the post-Soviet space (RIA News, December 10, 2024). On February 27, the SVR again accused the West of supporting anti-government rallies in Georgia to maintain its influence there, given the "national-conservative turnaround" taking place in the world (SVR, February 27).

Using a proactive, multifaceted approach to strengthen its influence in Georgia, Russia capitalizes on the critical factor of Orthodox confessional unity with Georgia, using it as an element of "soft power" (Ponars Eurasia, June 6, 2014; MDPI.com, February 17, 2023). The Georgian Orthodox Church advocates the protection of national conservative traditions, which differ from the "alien values of the West." Russia, which has declared itself a worldwide bulwark against "ultraliberalism," constantly bombards its Georgian audience with messages about the usefulness of "moving away from the ultra-liberal transhumanist agenda imposed from the outside" (Sovanews, December 10, 2024). Such messages held sway over the over one million Georgian Dream supporters in these elections, who represent a traditionalist-conservative segment of Georgian society.

The Russian military presence in Georgia's two separatist regions, hovering like a "sword of Damocles" over the country, represents another powerful factor of Russian influence. This all but ensures Tbilisi's cautious policy toward Moscow. Russia's leadership claims to be concerned that the West would orchestrate a new military conflict near Russia's borders, which would include Georgia's secessionist regions (President of Russia, February 24, 2022). Russian officials and pro-Kremlin opinion-makers praise Georgian Dream's restraint toward providing active assistance to Ukraine and its refusal to impose full-scale sanctions against Russia (Ekhokavkaza, September 6, 2024). This stance, however, does not exclude Georgia from Russia's use of military force. Russia may resort to hostilities against Georgia if Moscow believes that the use of military force guarantees a reduction or elimination of Georgia-borne threats to Russian national interests in the region. Russia is creating new military infrastructure and dual-use facilities in Georgia's secessionist regions, including the Russia-reconstructed Sukhumi airport where the first test flight

from Moscow has been conducted (<u>GlobalAffairs.ru</u>, August 13, 2018; see <u>EDM</u>, November 20, 2023; <u>SOVAnews</u>, April 1, 2024; <u>Civil.ge</u>, November 25, 2024).

Against the backdrop of Western sanctions, Russia is searching for alternative transit routes, including those that would pass through Georgia's territory to circumvent Western sanctions (see EDM, September 15, 2022, May 1, 2023, February 27; Civil.ge, February 3). In this regard, a Georgian portion of the Trans-Caspian International Transport Route (Middle Corridor), may become the target for various Russia-driven subversive actions (see EDM, April 19, 2022). Ingushetia is discussing the construction of the Caucasus Railway, which will connect the North Caucasus region of Russia with Georgia (IAM-News, December 1, 2024). Entrepreneurs from the Russian-Georgian Business Council—established in 2023—within the Russian Chamber of Commerce and Industry see new opportunities in this initiative (Civil.ge May 17, 2024). The Georgian government plans to completely modernize the highway—which leads to the border with Russia—and expand existing roads linking Russia and Georgia. The construction of a road that will be 23 kilometers (14 miles) long with five bridges and tunnels funded by the European Bank for Reconstruction and Development and the Asian Development Bank is well underway. The project is expected to be completed in 2025 (Kveshetikobiroad.ge, accessed March 3; Imedinews.ge April 23, 2024).

This February, another Georgian-Russian business association was officially registered with the Georgian government. The founding meeting gathered 60 companies, predominantly winemakers. The association's main goal is to help the businessmen engaged in exports to Russia. The association claims that the welfare of at least 700,000 Georgian households heavily depends on Georgia's economic relations with Russia (BM.ge, January 24, February 11). This factor has an influence on the electoral behavior of Georgian citizens.

Moscow is increasingly keen to capitalize on economic factors that strengthen its political footing in Georgia. The 10th International Economic Forum "Southern Gate of Russia 2024" underlined that "[t]oday it is time to revive" previously neglected relations with Georgia, especially through economic and socio-cultural relations, including opening new transit corridors and trans-border cooperation. Additionally, Russia has tried to lure Georgia into regional formats such as a "3+3" format between Türkiye, Russia, Iran, Azerbaijan, Armenia, and Georgia (Ssoar.info, July 2022). Georgian pundits, however, argue that Georgia cannot and will not receive any benefits from such a platform (see EDM, March 16, 2020, February 6; March 16, 2020; Sputnik-Georgia, June 19, 2024; Jam-news, December 11, 2024, Rezonansi, January 15).

Moscow's influence in Georgia also benefits from a significant number of Russian citizens who have relocated and settled there since Russia's full-scale invasion of Ukraine. The Kremlin considers these individuals as potential leverage that can be used if and when it deems necessary (see EDM, <u>August 10</u>, 2023, <u>February 15</u>, 2024). Russian officials consistently underline that Moscow will

defend its citizens worldwide (Russian Ministry of Foreign Affairs, November 7, 2007, March 31, 2023, February 19).

Georgia's economic dependence on Russia remains alarmingly high. This gives Moscow significant influence on local socio-political processes (Jam-News, February 16, 2024; see EDM, January 13). Despite a publicly declared pro-European orientation, many Georgian businesses are closely linked to the Russian market (see EDM, February 15, 2024). Pro-Georgian government TV channel "Imedi" published a list of 30 large- and medium-sized companies that recently, together with 2,300 other firms, signed a petition demanding to keep Georgia's pro-European orientation (Imedi.ge, December 26, 2024; Freebuisness.ge, accessed February 27). The published list shows that these companies conduct lucrative business inside Russia, receiving tens of millions in revenue (Imedinews, December 30, 2024). The income of a significant number of Georgian citizens, including employees of these companies, as well as the welfare of their families, largely depend on positive trade relations with Russia. Russia is likely to attempt to maintain this status quo.

Russia is among Georgia's top five trading partners. According to the National Statistical Service of Georgia, despite a three percent decrease in Georgia-Russia turnover from January to August 2024, Russia remains Georgia's second largest trading partner (RIA Novosti; Sovanews, November 6, 2024). Experts explain that territorial proximity, existing transport routes, long-established economic ties, and other factors facilitate this economic linkage. The experts, however, warn about the Kremlin's unpredictability, implying sudden restrictions on the export of various goods or an increase in excise duty on Georgian wine and spirits could be undertaken. According to the statistics, Russia was the first among the top five export markets for Georgian wine in 2024 (Currenttime.tv, March 17, 2024; BM.ge, September 19, 2024). In 2025, Georgia expects to receive twice as much natural gas from Russia as compared to the figure forecast in 2024. The volume of liquefied gas supplied from Russia to Georgia in September 2024 increased by 77.3 percent compared to 2023 (Parliament's Budget Office, 2024; EkhoKavkaza April 2, 2024; Sputnik Georgia, September 21, 2024; Vestnik Kavkaza, November 6, 2024; TASS December 18, 2024; BM.ge January 8; GPB, January 10, 17; Transparency.ge, February 16). It remains to be seen whether this trend will continue following a new package of Western sanctions on Russian oil and gas. In 2024, the volume of investments made by Russia's Public Joint Stock Company "Inter RAO"-owned electricity distribution company Telasi, effectively one of Russia's strategic assets in Georgia, exceeded GEL 160 million (\$57.5 million)—a record high for the enterprise (<u>Telasi.ge</u>, accessed February 27). Additionally, Russia remains the largest grain supplier to Georgia (Commersant.ge, November 14, 2024).

Imposing more sanctions against the Georgian government, which to some extent will also negatively affect Georgian citizens, could be risky despite the prevailing pro-sanction position in the West. Excessive sanctions regimes against Georgia may not yield the expected results, as the

negative economic effects may just as likely instill anti-Western sentiment in a significant portion of the Georgian population. Sanctions may also provoke Georgia's leadership to intensify its multi-vector foreign policy at the expense of weakening the nominal pro-European path and increasing Tbilisi's connections with Russia. Ultimately, the current conflict-prone political situation in Georgia and poisoned relations with the West hamper Georgia's integration into Euro-Atlantic structures. Russia will likely do its utmost to maintain this status quo for as long as possible.

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