



Assessing the Potential of North Korean Ammunition and Weapons Deliveries to Russia

Marcin Andrzej Piotrowski

Military assistance from North Korea (DPRK) may partially meet Russia's needs and help it in continuing the war with Ukraine. Its impact on the military situation depends on the continuity, quantity, and quality of supplies of ammunition and weapons. The developing secret military cooperation between the two countries demands the increased attention of Western intelligence services, publicising it on the international stage, and more active countermeasures by Ukraine's partners.

Russia's war with Ukraine revealed serious problems in the tactics, reserves, and defence industry of the aggressor. Capability gaps are already visible in Russian stocks of ammunition, guided missiles, armoured vehicles, and drones. Already in September 2022, the U.S. administration publicised that Russia was negotiating with North Korea for supplies of equipment and ammunition. The first transports were to start in November-December and it can be assumed that they are continuing.

Russia's Growing Needs. During the intense war with Ukraine, Russia has depleted its reserves of factory-new artillery ammunition and has been forced to reach deeper into reserves, including using expired shells and rockets. In the first year of the war, Russia probably fired up to 12-14 million artillery shells and rockets, while the increased annual production has reached up to 4-5 million shells. Without radical changes in tactics and reduced consumption of munitions, Russian industry will not be able to prevent a kind of "shell hunger" of heavy artillery ammunition at the front. Moreover, the previous scale of Russian strikes with ballistic and cruise missiles (in total more than 5,000) is impossible to sustain even with increased production (up to 600-700 missiles annually). The level and pace of Russia's losses of armoured vehicles (at least 2,000 tanks) will not be offset by new production or by repairs or upgrades of equipment from the army's deep reserves. Russia also is unable to deliver to the battlefield the necessary quantities of reconnaissance, armed, and kamikaze drones, [and since summer 2022, it has depended on deliveries of units from Iran.](#)

Russia-North Korea Relations. Despite many military agreements and the friendship treaty of 1961, relations

between the USSR and North Korea were marked by mutual suspicion, aid manipulation, and impact of the Soviet-Chinese rivalry. A significant role has been the unpredictability of the regime in Pyongyang, the costs of economic and military assistance to the North, as well as Soviet reluctance to accept the dynastic plans of Kim Il Sung. USSR offensive arms transfers to North Korea were delayed in comparison to Warsaw Pact countries or limited to defensive systems. The last significant Soviet arms deliveries to North Korea were 18-21 MiG-29 jet fighters and 34 Su-25 close-support aircraft, plus several obsolete *Romeo*-class submarines. Moreover, in 1993 Russia sold North Korea up to 10 [Golf II-class submarines planned for scrapping, later used in the development of further platforms for sea-launched ballistic missiles](#). During the same period, North Korea also illegally obtained Russian documentation of Soviet R-27 ballistic missiles, which was helpful in the development of intermediate-range HS-10 Musudan missiles (3,000 km range). Nevertheless, since 1991, [Russia had preferred beneficial missile and space cooperation with South Korea](#), and after the latter cancelled Soviet debts, Russia limited military cooperation with North Korea. Russia also gained a strong position in relations with the U.S., Japan, and South Korea in negotiations on the North's nuclear programme and supported further UN sanctions on the regimes of Kim Jong Il and Kim Jong Un. Unlike the USSR, [Russia also seemed to be increasingly reconciled with the growing influence of China](#) on the North Korean regime.

[The war with Ukraine has been a turning point in North Korea-Russia relations](#), confirmed in July by the North's recognition of the pro-Russian illegal administration of the so-called People's

Republics of Donetsk and Lugansk. The North is not limiting itself to gestures and clearly aims to take advantage of [tensions between the U.S. and Russia and China](#). Starting in summer 2022, Vladimir Putin and Kim Jong Un exchanged several open letters with declarations of mutual assistance. The Russians do not hide their offer of food and raw materials to North Korea and their interests in workers from that country in the occupied territories. Russian media also speculated about a contingent of “Kim’s volunteers” and opportunities for Russia’s help in the modernisation of the North’s air force. According to U.S. intelligence, Russia negotiated with North Korea the supply of “millions” of artillery shells and rockets in August-September 2022, and there was increased freight train traffic between the two countries in November-December. Biden administration also disclosed that there had been talks and a Slovak intermediary in supplying ammunition from North Korea to the [Wagner Group](#)—it is still not clear whether this was an independent channel or an element of a broader deal between North Korea and Russia. Non-governmental experts also point to the many possibilities of hidden supplies of ammunition to Russia (via direct railway connections and indirect sea-land routes via Iran), as well as the growing importance of the [North’s experience in circumventing international sanctions](#).

Possible Supply Options. North Korea’s extremely huge land and paramilitary forces (6 million troops and militiamen), it can produce weapons and ammunition for light infantry on a large scale. North Korean small arms and ammunition already have been widely supplied to the Syrian and Sudanese regimes. However and above all, the North has an extensive arsenal and industrial base for the production of heavy artillery ammunition in Soviet standard sizes. The Northern Korean artillery arsenal is estimated at up to 9,000 various types and models of howitzers and up to 5-6,000 multiple rocket launchers. This arsenal reflects the strong influence of the Soviet model on the doctrine, tactics, and equipment of the North Korean army. However there are no reliable estimates for its industrial production capacity and strategic reserves of ammunition. South Korean experts assume that these are reserves of “several tens of millions of shells” for a conventional war on the Korean Peninsula. The North certainly produces shells for 122mm, 130mm, and 152mm howitzers, 120mm mortar shells, and 122mm Grad rockets. It has been an important exporter of these for four decades and the main supplier of Soviet-standard ammunition to Iran during the intense war with Iraq (1980-1988). Moreover, North Korea copied and modified Soviet T-62 tanks on its own and has at least 2,000 of these, along with active production lines. Although these tanks are obsolete on the modern battlefield and Russia no longer produces T-62s, it is pulling more and more of them from their reserves. Thus, North Korea can offer Russia spare parts for the T-62, as well as ammunition for the 115mm and 125mm tank guns.

It is unlikely that North Korea will quickly provide to Russia any guided missiles or military drones. Over the past decade, North Korea’s missile arsenal has made major technological progress in testing of new solid-propellant ballistic missiles. The first of these was the KN-02 Toksa missile based on the Soviet Tochka-U (range up to 150-180 km). The newer ones are the family of the KN-23 missiles modelled on the Russian Iskander-M (500 km

range), and the latest KN-24 is modelled on the South Korean KTSSM and American ATACMS (200 and 400 km ranges). These systems’ technologies were probably stolen by North Korea from the South, and likely are simplified from the originals and produced still in limited numbers. It is also doubtful whether the KN-23 missiles are compatible with the launchers of the Russian Iskanders. More likely is that the North, in case of higher production of KN-23 and KN-24 missiles, would deliver older KN-02s first, but it is doubtful whether the range, number, or quality of the Toksas will meet Russia’s huge needs. Despite the use of simple drones by North Korea, its industry is not capable of providing Russia with the types or models of drones mostly needed in Ukraine. The launch of mass production of North Korean military drones is realistic in the next few years, on condition of close cooperation with Russia and Iran.

Implications. Russia is still unable to reverse the main trends and challenges in replacing military equipment used or lost during the war with Ukraine. The Russian government is either bluffing about the capabilities of its industry and strategic reserves or does not have a complete picture of them. Without radical changes in Russia’s tactics, its army will have difficulty in maintaining the previous levels of ammunition usage and in some other categories of heavy conventional arms. One of the visible impacts of these problems is the development of Russian cooperation with North Korea and Iran, as well as the revealed efforts to obtain ammunition and drones from China. The actual scope of this assistance to Russia is difficult to assess without classified intelligence details. The threat of mass participation of “Kim’s volunteers” in the war between Russia and Ukraine is unrealistic, but the emergence of small groups North Korean advisors for fortification and shelters, trench and unconventional tactics, cannot be ruled out completely.

Even limited information about North Korea’s industry should not result in the underestimation of this potential, especially in the field of artillery ammunition so much needed by Russia. North Korean production and supplies may help Russia to meet at least several months of high consumption at the front. In the short term, the risk of North Korean ballistic missile deliveries for Russia is low, although long-term technological cooperation might develop in the future. In addition, the likelihood of Russia using Belarus to diversify the channels and routes of its military cooperation with North Korea and Iran is growing. Russia’s attraction to the Kim regime is because of North Korea’s simple Soviet-type weapons, cheap ammunition, and clones of some Chinese and Western systems. The North’s decades of experience in evading international sanctions also will be useful for Russia. The current phase of military cooperation between the two countries is not comparable to the period of the Cold War, but it requires the increased attention of the intelligence services of Ukraine’s partners. Regardless of the existing sanctions against North Korea, it may be necessary to introduce further packages of sanctions by the U.S. and the EU (within the UN, these would be blocked by Russia and China) and to work out measures to hinder supplies to Russia. Closer cooperation between Russia and North Korea also affects the security of U.S. allies in Asia, including South Korea’s calculations of providing additional military assistance to Ukraine.