

The Legal Aspect of Sanctions Against Russia and the Development of the Space Industry

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The article reveals the legal basis for sanctioning Russia in response to a large-scale military invasion of Ukraine on February 24, 2022. Detailed attention is devoted to the impact of sanctions on the development of the world and Russian space industries. It has been proved that sanctions are an important auxiliary factor in the victory of the anti-Putin coalition. Sanctions are being introduced as a form of international coercion on the Russian government to comply with international law. It is concluded that sanctioning Russia's space industry significantly accelerates its degradation. Russia will not be able to manufacture, launch and upgrade military satellites. It is demonstrated that imposing sanctions on Russia has no significant influence on the world community's an exploration and use of outer space.

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Introduction

On February 24, 2022, the Russian-Ukrainian war entered a new phase with the invasion of Ukraine by more than 100,000 Russian soldiers. In a short time, the world found itself in a new paradigm – the Great European War. The Armed Forces of Ukraine are defending the Fatherland and the whole of Europe from Russian terrorist troops. According to US President J. Biden, the current events in Ukraine are changing the history of the XXI century (Kuleba, 2022; Biden says, 2022).

It is not easy for Ukraine to wage war because the Russian terrorist forces do not comply with the norms of international humanitarian law. They are employing a tried-and-true method of capturing cities in Grozny (Republic of Ichkeria) and Aleppo (Syria) by destroying all buildings with missiles, artillery and bombs, as well as killing civilians. It is a proven fact that the capital of Ichkeria, Grozny, was completely demolished by Putin's personal order. Thousands of innocent people were killed as a result of these tragic events. The dictator claimed that his soldiers had finished their mission (Myre, 2022).

The world community has not prosecuted Putin for committing crimes and has not imposed sanctions on Russia. Tolerating evil leads only to more evil. As a result, unpunished crimes multiply exponentially. Several Ukrainian cities, notably Mykolaiv, Popasne, Rubizhne, Lymanske, Severodonets, and Kurakhove, are currently in a horrible situation (Results, 2022).

Prior to that, the cities of Mariupol, Volnovakha, Bucha, Irpin, Hostomel, and Borodyanka were almost completely ruined. Thousands of citizens were killed or seriously injured in Kyiv, Kharkiv, Chernihiv, Vasylykiv, Sumy, etc. Civilian objects in practically every region of Ukraine, including Lviv, Odesa, Kyiv, Vinnytsia, Rivne, Zhytomyr, Kropyvnytskyi, Ternopil, and others, are continuously targeted by rockets. What is more, the world's largest Zaporizhzhya Nuclear Power Plant was subject to constant shelling and bombing. The Chornobyl Exclusion Zone was seized and looted.

Russian terrorist troops are responsible for the worst humanitarian disaster in Mariupol, a metropolis of half a million people. For more than two months, the regional center of Donbas has been under siege. The Armed Forces of Ukraine do not have the ability to unblock it under the current circumstances. Consequently, Russian soldiers are carrying out mass killings of civilians, which have all the hallmarks of crimes against humanity.

In the context of hostilities, national legislation does not work well. That is why the world community was established in the late XIX and improved during the XX century, international humanitarian law. However, the Putin regime does not comply with its provisions. Domestic and international humanitarian organizations carry out a number of measures to provide assistance to the needy. Politicians are negotiating to resolve the humanitarian catastrophe. Unfortunately, Russian dictator Putin does not agree to take any steps to abide by the basic provisions of humanitarian law. Thus, international sanctions are applied fairly and legitimately to the Putin regime.

The problem of establishing a link between sanctions imposed on Russia and the development of the space sector is both scientific and practical. After all, Europe is facing the threat of a major conflict on its territory for the first time since World War II. Putin, who wields full totalitarian control over the world's greatest space and nuclear weapons, violates international law with military force, and Russian occupants carry out crimes against humanity on his orders on the territory of a sovereign European state – Ukraine (Kharchenko, 2022). All of this necessitates the latest scientific analyses and practical proposals to stop Putin's military machine. The very existence of Russia's space forces poses a nuclear missile threat to the whole humanity. Sanctions are one of the most essential and effective measures for the localization and subsequent degradation of defense forces.

The legal nature of sanctions imposed on Russia in the context of Russian terrorist aggression against Ukraine

International law employs a variety of tools to influence states that violate the law. According to Dutch government specialists, sanctions can be used by the international community to change the behavior of a country/regime that breaches human rights or threatens world peace and security. Sanctions vary by country and situation and may include arms embargoes, imports and/or exports of certain goods, software and technology. The embargo may also cover goods that bring money to the leaders of the sanctioned country. In addition, they may restrict the issuance of loans and credits to individuals/companies of such a country, freeze the assets of certain individuals and corporations, as well as impose visa restrictions. Sanctions may be imposed by the UN Security Council, the European Union and individual states (Sanctions, 2022). For its aggressive actions against Ukraine, Russia has faced virtually all of the sanctions listed above.

Sanctions are a subset of a larger category known as “economic war” – employing or threatening to use economic tactics against a country in an attempt to weaken its economy and thus reduce its political and military power. Economic warfare also entails using economic measures to force the enemy to change his policies and behavior or to undermine his ability to maintain ongoing relations with other countries. Some common means of economic warfare include trade embargoes, boycotts, sanctions, expropriation, tariff discrimination, aid suspension, the freezing of capital assets, the ban on investment and other capital flows (Shambaugh, 2022a).

In today's world, the aggressive and inhumane actions of the Russian terrorist forces in Ukraine have elicited a strong and widespread negative response.

Another key category that has to be disclosed is the “embargo” – a legal ban of a government against a certain country prohibiting the movement of commerce ships into or out of its ports to induce compliance with legal obligations and requirements. The notion of “embargo” can be wide and narrow. A trade embargo, for example, is a ban on exports to one or more countries, although the term is often used to denote a ban on any kind of trade. In contrast, the strategic embargo restricts only the sale of goods that make a direct and concrete contribution to the country's military power. For instance, the oil embargo only prohibits oil exports. Embargo, in a broad sense, often allows the continued export of certain goods (such as medicines or food) for humanitarian purposes, and most multilateral embargoes include disclaimers that specify a restricted range of criteria under which exporters can be exempted from their bans (Shambaugh, 2022b).

Despite all the actions of the international community, the violation of humanitarian law by Russian terrorist forces continues. Accordingly, new and new packages of sanctions are being applied to Russia. The main ones are the oil and gas embargo. The following sanctions are applied by individual states and their associations. After all, it is impossible to use the UN security mechanism since Russia is a permanent member of the UN Security Council (Ilchenko, 2022).

Many countries placed sanctions on Russia in response to a large-scale invasion of Ukraine on February 24, 2022. The United States, Britain, Canada, the European Union and other states have imposed sanctions on companies, officials and some influential people in Russia. In particular, Britain has sanctioned more than 100 individuals and enterprises. US President Joe Biden limited the ability of Russian companies to settle in dollars, euros, pounds and yen (Biden says, 2022)

In total, more than 900 people were included in the sanctions lists. Each list contains a different number of individuals and legal entities subject to sanctions, depending on the country that imposed them. Mostly, they are citizens of Russia, current and former deputies of the State Duma, and members of the Council of the Russian Federation. From February 24 to March 11, 2022, the sanctions lists of the EU, Canada, Australia and Great Britain included more than 300 deputies of the State Duma of Russia who voted for the recognition of the DPR and LPR. On March 9, 2022, the EU added another 146 members of the Russian Federation Council to the sanctions list, who ratified the “Agreements on Friendship, Cooperation, and Mutual Assistance between the Russian Federation and the DPR and between the Russian Federation and the LPR.”

Personal sanctions have also been imposed on Putin, his spokesman Dmitry Peskov, Russian Foreign Minister Sergey Lavrov, and the Minister of Defence Sergei Shoigu. In addition to Russian government figures, the sanctions list covers such oligarchs as Mikhail Fridman, Alisher Usmanov, Alexei Mordashov, Oleg Deripaska, Roman Abramovich and Putin’s inner circle: brothers Arkadiy and Boris Rotenbergs, Yuri Kovalchuk, Gennady Timchenko, Yevgeniy Prigozhyn. President of Belarus Alexander Lukashenko, his sons Dmitry and Viktor, as well as Chechen Republic leader Ramzan Kadyrov were named on the sanctions list. The sanctions lists also included TV presenter on Rossiya 1 TV channel Vladimir Solovyov, RT editor-in-chief Margarita Simonyan, head of the NewFront propaganda news agency Konstantin Knirik, director general of Channel One Russia Konstantin Ernst (Hloba, 2022).

Also, more than 300 Russian banks, including Rossiya, Promsvyazbank, Genbank, Industrial Savings Bank, Novikombank, VTB Bank, and the corporation WEB.RF, were sanctioned. The freezing of legal entities’ assets is the most common type of restrictive measure on all lists examined. Furthermore, US sanctions against PJSC Gazprom have been increased. In addition to a freeze on the company’s assets, a restriction on transactions, financing, and other activities with debt was introduced. The United Kingdom, Canada, and Australia have all sanctioned Alexei Miller, the Chairman of the Board of PJSC Gazprom.

On March 10, 2022, the Canadian government added about 30 Russian companies operating in the field of mechanical engineering, including aircraft manufacturing, as well as the Ministry of Defence and the Russian Foreign Intelligence Service, to the sanctions list, in addition to the banking sector companies.

The European Union imposed sanctions on roughly 90 Russian firms on March 15, 2022, including a prohibition on all commercial links with ten key Russian defense companies, as well as oil and gas corporations. Nevertheless, the wording allows purchasing oil and gas if

there is a critical need. Restrictions on other listed companies apply to the prohibition of direct or indirect sales, supply, transfer, or export of dual-use items and technologies (Hloba, 2022).

However, as the decades-long experience of North Korea, Iran, and Venezuela has shown, even the toughest sanctions do not bring the desired result, because they must be backed by military force. Unfortunately, no matter how long and strong the US aircraft bomb terrorists in Afghanistan, they cannot be destroyed without a ground-based assault operation.

In our opinion, sanctions against Russia have a security purpose. They must not allow the Russian military machine to restore its military potential. Thus, sanctions without military coercion against the aggressor's country are ineffective. Moreover, they are, in most cases, useless and do considerable damage to the democracies that impose them. International sanctions applied by the democratic community are a means of supporting the Ukrainian military who fight against the aggressor country that grossly violates the norms of international law and (or) is a sponsor of international terrorism.

In order to accelerate the supply of military weapons to Ukraine and to counter Russia's full-scale invasion, a summit of NATO member nations and Allies was held on April 26, 2022, at the US Air Base in Ramstein, Germany. More than 40 countries participated in this unprecedented forum: 1) Australia 2) Albania, 3) Belgium, 4) Bulgaria, 5) Great Britain, 6) Greece, 7) Denmark, 8) Estonia, 9) Israel, 10) Iceland, 11) Spain, 12) Italy, 13) Jordan, 14) Canada, 15) Qatar, 16) Kenya, 17) Latvia, 18) Lithuania, 19) Liberia, 20) Luxembourg, 21) Morocco, 22) Netherlands, 23) Germany, 24) New Zealand, 25) Norway, 26) South Korea, 27) Poland, 28) Portugal, 29) Northern Macedonia, 30) Romania, 31) Slovakia, 32) Slovenia, 33) USA, 34) Tunisia, 35) Turkey, 36) Hungary, 37) Ukraine, 38) Finland, 39) France, 40) Croatia, 41) Czech Republic, 42) Montenegro, 43) Sweden, 44) Japan.

According to Volodymyr Yelchenko, the meeting at Ramstein Air Base (2022) actually marked the formation of an anti-Putin coalition. In his view, this is reminiscent of the historical circumstances surrounding the creation of an anti-Hitler coalition at the 1943 Tehran Conference (Yelchenko, 2022).

Thus, the imposed sanctions are measures of international economic, financial and organizational coercion applied to Russian individuals and legal entities for participation (directly or indirectly) in the implementation of armed aggression and violation of humanitarian law by Russian terrorist forces in Ukraine.

Sanctions are applied by democracies individually (USA, UK, Poland, Lithuania, Latvia, Estonia, Slovakia, Romania, Japan, Australia, France, Germany, etc.) and by the EU-NATO community as a whole. The goal is to prevent the restoration of Russia's military potential, which is being destroyed by the Armed Forces of Ukraine. Following Ukraine's victory in the war against Russia, the sanctions will be aimed at forcing the Russian government to fulfill all obligations to demilitarize Russia, pay reparations to Ukraine, individuals and legal entities affected by Russian terrorist aggression, release all Ukrainian prisoners of war and implement democratic reforms in Russia.

Sanctions against Russia's space industry

According to US President Joe Biden, the application of sanctions will result in significant losses for the Russian economy and will prevent Russia from modernizing its military power in the near future (Biden, 2022). The sanctions will also affect the aerospace industry, including Russia's space program, as they block more than half of high-tech imports. For example, the

European Union has imposed sanctions against the Progress Rocket Space Centre, and the European Space Agency ruled out the launch of a Russian-European mission to explore Mars ExoMars. The European Space Agency intends to launch satellites into orbit using European rockets rather than Russian ones (Zvyagin, 2022).

Also, in the context of the latest sanctions against Russia, the Council of the European Space Agency (ESA) has decided to refuse to cooperate with Russia on the monthly programs Luna-25, Luna-26 and Luna-27. Since the Russian aggression against Ukraine and the imposed sanctions make such cooperation impossible (No 16–2022, 2022).

The sanctions have a significant impact, as evidenced by Roscosmos chairman Rogozin's statement urging Western countries to lift sanctions imposed in response to Russia's large-scale invasion of Ukraine. Otherwise, Russia will suspend its International Space Station cooperation with Western countries. He believes that sanctions are intended to kill the Russian economy, drive the Russian people to despair and hunger, and bring the country to its knees. The political circles of the countries that imposed sanctions on Russia did not react to the blackmail of a Russian politician and the head of the national space industry. The US National Aeronautics and Space Administration has begun implementing ways to keep the International Space Station in orbit without the assistance of Russia (Sanctions have, 2022).

For example, Russia cannot launch a satellite into orbit, since the necessary number of chips cannot be delivered due to Western sanctions. Consequently, the launch of satellites into space orbit is significantly complicated by the lack of chips (Russia, 2022).

It should be understood that the United States and some other Western nations did not want Russia's space cooperation to end completely. However, Roscosmos is severing ties with global partners on its own initiative in response to restrictions on its side. Russia has announced the cessation of sales of US rocket engines. Indeed, since the 1990s, Russia has supplied 122 RD-180 engines to the United States. In particular, they were used on Atlas launch vehicles. However, it should be noted that the RD-180 is a "repainted" RD-170 engine developed in the late 1970s and early 1980s by Soviet scientists of Ukrainian origin Valentyn Glushko. Unfortunately, the engine is already obsolete. Accordingly, analogs and more advanced products are available in the rocket engine markets, both in the United States and in other countries, including South Korea.

Similarly, Western cosmic agencies did not want to completely terminate ISS service contracts. US analysts confirm that the problem of the International Space Station exists. After all, the ISS has been a joint effort of the United States and Russia from the very beginning. It was created during the period of improving relations between the enemies of the Cold War, after the fall of the Berlin Wall and the end of the space race. After the failure of the US space shuttle, Russia's Soyuz rockets were the only means of sending astronauts into orbit and back, at least until SpaceX. In fact, six of the station's sixteen housing modules were supplied by Russia and eight by the United States (the rest were provided by Japan and the European Space Agency). However, according to the US Secretary of Commerce Gina Raimondo, Russia's actions pose an immediate threat to Ukrainians. They also pose a serious threat to global democracy. Thus, the United States will continue to act decisively in close coordination with allies and partners and will not tolerate Russia's aggression against Ukraine's democratically elected government (Tarantola, 2022).

Elon Musk rightly responded to Russia's blackmail to stop serving the ISS. He suggested involving SpaceX in keeping the ISS in orbit. SpaceX can keep the ISS afloat without the hassle of Falcon 9 equipment by taking over delivery flights (Tarantola, 2022).

As a result of the so-called counter-sanctions, the Russian space agency is isolating itself. This hastens the demise of Russia's cosmic industry, which has long relied on the developments and achievements of Soviet scientists and designers from the 1960s and 1980s.

Thus, sanctions imposed on Russia's space industry for its military aggression against Ukraine, as well as Roscosmos' subsequent self-isolation and refusal to cooperate on long-term contracts, contribute to Russia's gradual decline as a great space power. After all, the Russian space industry has been stagnant for a long time, and it is becoming increasingly difficult to capitalize on the 1960s and 1980s developments. The generous infusions into Russia's cosmic industry could be halted with comprehensive sanctions and an oil embargo. This will result in a significant reduction in Russia's space industry, which is unreformed and operates according to the patterns of the previous era's planned economy.

The impact of sanctions against Russia on the world space industry

For a long time, Russia's space industry has been a world leader. Along with US space achievements, it dominated the world. This was especially true during the Soviet era. Despite all the criticism of that system, the first launch of an artificial satellite of the Earth and the first manned space flight was conducted by the Soviet empire.

As a result, following Russia's declaration of independence from the Soviet Union on June 12, 1990 (Day, 2018) and the subsequent cessation of its existence, Russia inherited a significant scientific and technological advance of the space industry compared to other states. However, the authoritarian, corrupt system of public administration, selection, and appointment to senior positions in the space industry based on personal devotion to Putin rather than professional qualifications led to stagnation and loss of Russia's previous epoch achievements. The facts of a failed launch at the Vostochny Cosmodrome due to an error in entering the launch coordinates are known to the world space community. The "specialists" mistakenly entered the coordinates of the Baikonur Cosmodrome's launch site into the launch system. Although the Russian state commission has officially released the version that after the separation of the head part from the launch vehicle, the process of spatial orientation of the upper stage began, and during this period, telemetry tools recorded the abnormal angular position of the booster (Agamalova, 2017). On October 18, 2018, the cosmic spacecraft "Union 10" crew was rescued in an emergency for the first time in many years. The crash of the Soyuz-FG missile on the active part of the trajectory revealed the vulnerabilities of the so-called modern Russian technologies (Pervushin, 2018).

Thus, long before February 24, 2022, both cargo and manned spaceflight in Russia began to decline. It does not currently hold a leading position alongside the United States, China, and the European Union. After the imposition of sanctions, Russia has the opportunity to launch a carrier rocket, but it is impossible to produce satellites on its own.

The only temporary problem for the world space community in the face of sanctions against Russia is certain potential challenges associated with the continued operation of the ISS. Eventually, the negative impact of sanctions imposed on Russia on the global space industry is minimal. In the face of self-isolation, international sanctions, corruption, and poor personnel policies, Russia's space sector is doomed to rapid degradation.

Conclusions

Therefore, after the beginning of February 24, 2022, full-scale Russian invasion of Ukraine, the world community has moved into a new international paradigm – the war of good and evil. Correspondingly, more than 42 democracies, led by Ukraine, are directly on the side of good. Russia is a country-aggressor, with only four state marginals supporting it. God has entrusted the mission of destroying Russia's military power on the Ukrainian people. This is given to Ukraine at the expense of significant civilian casualties and economic hardship. More than 140 sovereign member states of the United Nations have directly supported Ukraine in this military struggle.

The anti-Putin coalition's members have agreed to provide the Ukrainian army with weaponry and everything necessary to combat Russia's military forces. In addition, they provide financial support to Ukraine through international financial institutions.

Sanctions imposed by democracies on Russia are an important factor in the victory of the anti-Putin coalition. The sanctions aim to compel Russia's government to reimburse Ukraine, compensate other legal entities and individuals, surrender nuclear weapons for disposal, and free all hostages and political prisoners. Russia should be weakened to the degree where it is unable to restore its military power.

The restrictions imposed on Russia's space sector are effective because they accelerate the industry's degradation. Russia is losing its ability to develop and launch military satellites, as well as modernize military missile systems. At the same time, the negative impact of sanctions on the world market for space exploration and use is minimal. Other developed space powers of the world will significantly contribute to the space industry in a short period of time.

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