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# **U.S. Sanctions Are Ineffective: Russia's Dark Fleet and Gray Fleet and its Circumvention of Sanctions.**

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## **U.S. Sanctions Are Ineffective: Russia's Dark Fleet and Gray Fleet and its Circumvention of Sanctions.**

In the advent of the Russian invasion of Ukraine and the subsequent sanctions imposed on the Russian state and Russian-affiliated entities by the United States and its western allies, Russia has needed to devise an ingenious way through which to skirt sanctions and sell its oil, maintain the economy and keep the war-effort in Ukraine going. The quite draconian solution it chose is what is referred to as the infamous "Dark Fleet", an armada of older tanker ships acquired all over the world for the purpose of conducting ship-to-ship transfers on the high oceans and in ports, in order to be able to sell at a discount to willing buyers in China, India and Turkey (Reed, 2023). This strategy and its successes, originally taken from Iran and Venezuela, has seen the percentage of ships with more than 20 years in age move from 3% before the Russian invasion of Ukraine to being estimated to reach 11% in 2025, signaling a whopping, almost 300% increase in about 4 years despite a wave of biting sanctions by the might of the US and its allies (Chambers, 2023).

This then begs a series of questions:

1. Is the sanctions regime being implemented by the US and its allies on the Russian state, its cronies and allies effective at all?
2. How is it possible for the Russian state to be able to amass the Dark Fleet from certain entities without the Western bloc figuring out who the sellers are and crippling their operations?
3. Where are the primary hotspots of these ships, and how is Russia able to transfer its oil without the US and its allies able to track or monitor these tankers?

4. What is the effect of Russia's shadow fleet on US national security, global peace and the environment?

Against the appeals of many countries, Russia invaded Ukraine in February 2022 in a war that has killed thousands. In response to its aggression, the US, UK, EU and other partner nations have since imposed a total of about 16500 sanctions on the Russian state; sanctions designed to cripple the country's economy and hopefully prompt a de-escalation of hostilities in Ukraine (*What Are the Sanctions on Russia and Have They Affected Its Economy?*, 2024). Since then, about \$350 billion, estimated to be about half of Russia's foreign reserves, have been frozen. 70% of the assets of Russian banks have also been said to be frozen, with some excluded from SWIFT. There is also a ban on exports of technology that Russia might use in making weapons, a ban on gold and diamond imports from Russia, a ban on Russian oil and gas and a price cap on Russian crude oil in order to sink the Russian state earnings among others.

This has not done much in bringing Russia to its knees as the Western powers would have envisaged. In circumvention of the sanctions imposed, Russia has been able to gather a Dark Fleet numbering around 1000 tankers to transport its oil and sell above the G7 price cap. In addition, the International Energy Agency reported that Russia is still exporting 8.3 million barrels of oil a day with increased supply to India and China (*Oil Market Report - May 2023*, 2023). As regards goods, it has been able to import sanctioned goods from the US and its allies by buying through its neighbors such as Georgia, Belarus and Kazakhstan and in terms of technological products, has found an alternative in China. Finally, Russia's economy shrank by 2.1% when the war in Ukraine started and sanctions bit into the fabric of the Russian economy. Things however looked up for the Russian economy in 2023 as it grew by 2.2% (*IMF Data*

*Mapper* ®, 2023). The IMF is predicting a 1.1% further growth in 2024; economic growth buoyed by skirting western economic sanctions and particularly thanks to the “Dark Fleet”. The question of “how” remains to be asked. How is the Dark Fleet able to sail across the high seas and swell up at breakneck speed? The answer lies in the fact that sanctions mean that any Western entity that trades, transports or insures oil for Russia would be in contravention of Western imposed sanctions. As such, Russia amassed an armada of aging ships to do its business (*How Is a ‘Shadow Fleet’ Hindering Efforts to Help Ukraine?*, 2023). These ships maintain a relatively silent profile by traveling without insurance, switching off their AIS transmitters, deliberately falsifying documents or simply painting over the name on the ships to mask its true origin.

Twelve (12) months after the invasion of Ukraine, the Dark Fleet was said to have around 600 tankers and some other vessels. 20% of the world’s total crude-oil fleet, a number of about 400 tankers had gone “dark” in this time (Hunter et al., 2023). In another report, the size of the Dark Fleet was said to have ballooned up to 1100. There was said to be a smaller class of vessels called “the gray fleet”, vessels estimated at about 900 that have not gone completely off the radar but whose sanctions compliance and/or ownership were difficult to determine (*Illuminating Russia's Shadow Fleet*, 2024). As such, the dark fleet made up 10% of the world’s wet cargo fleet and the gray fleet at 8%. These numbers have since gone up as reports from Vortexa, an analytics company shows that 1649 tankers have been operating in the shadowy spectrum since January 2021 with 1089 ships moving Russian crude oil (*Exclusive Report - The Fleet Operating in Opaque Markets - One Year Since the EU Import Ban*, 2023)

Perhaps the most interesting question is the route to which these ships sail and why the US and its allies are not able to track them. The former is answered through the Baltic Sea. Within the space of March 2020 to 2022, the volume of crude oil tankers taking the Baltic sea grew significantly from an average of 662 per month within that period to about 955 journeys between April to September 2023. As the number of voyages grew, the sizes of the tankers grew. As the sizes grew, the length and average age of the tankers also grew. Also between 2020 and January 2022, most of the Russian tankers that had left Russia berthed in the US and European ports. However, since the war in Ukraine, there was a shift in these vessels calling to majorly India, China, with a lot of ship-to-ship transfers sighted with other ships off the coasts of Greece and Morocco according to the Norwegian Coastal Administration. Liberia has been fingered as the dominant flag state for ships exiting Russia through the Baltic Sea. Since 2021, Cook Islands, Cameroon, Gabon, St Kitts and Nevis, Vietnam and Palau began moving Russian crude oil. Gabon for instance, has become a safe harbor for Dark Fleet tankers with around 98% of tankers flying its flag deemed as high-risk or with no veritable owner (Braw & Kramer, 2024). The Cathay Phoenix, an oil tanker, had its signals transmitting that it was sailing west of Japan. The ship's positioning was however highly irregular. Through the use of a satellite, it was determined that the ship was nowhere near the position it was transmitting from and had actually been 250 miles north at Kozmino, a Russian port, likely headed for China in breach of US sanctions. Like the Cathay Phoenix's deceit of its position, several other tankers are now following the same tactics (Triebert et al., 2023). These vessels have been outfitted with state-of-the-art spoofing technology that masks the position of the vessels, thereby making them difficult to track. The tankers engage in this primarily to maintain insurance coverage which their mostly Western insurers provide them, who are in turn bound by the sanctions imposed by the

west. Without these insurance coverage, these ships will not be able to sail or berth in European ports and an insurer who goes against this would be in violation of international sanctions.

One thing is clear; the sanctions imposed by the US and its allies on Russia have not been as successful as they should have been and this has wide-ranging implications for the US national security. Russia has not only been able to successfully skirt oil sanctions, she has also been able to import its consumer needs particularly through third countries and due to a tectonic shift in geo-political alliances, enjoys the favor of countries not just in the BRICS bloc, but also in central and western Africa, where the Wagner Group has held sway and managed to develop relations particularly with governments in the region (*Why Russia Has Been So Resilient to Western Export Controls*, 2024). All of these equate to the fact that should the current spate of things continue without a change in tact, Russia has enough resources to press on with its offensive in Ukraine, continue its expansionist quest in Africa and especially in areas where the US previously held sway and influence, maintain a steady stream of trade and income with countries who are not bound to uphold US sanctions and undermine US foreign policy around the world. The scale of the problem becomes exacerbated when the possibility of accidents that could occur as a result of ship-to-ship operations or sailing poorly maintained vessels could affect marine life is taken into context. Suspected Dark Fleet tankers have been involved in a barrage of collisions, fires and spoils and in the case of a major accident, will mean massive environmental consequences. Lastly, since these ships' insurance do not cover sanctions evasions, Western countries might not have any choice but foot the clean-up bills that accrue as a result of a major accident (Hammer et al., 2024).

I propose a multifaceted approach to solving this problem across two touch points using technology and diplomacy:

- **Technology**

The US should in conjunction with its allies develop a “maritime police” that caters to their interests and monitors the activities of entities that are suspected of being in cahoots with the Russian state. Few of the technologies to be deployed on this touch point include

**Enhanced Satellite Surveillance**

- Jointly develop a high-resolution satellite surveillance technology and program capable of monitoring maritime activities to a high degree of precision
- Jointly develop a real-time monitoring system that can track vessel movements, identify unauthorized ship-to-ship transfers, and detect spoofing techniques used to mask vessel locations.

**Advanced Data Analytics and AI**

- In collaboration with other allied nations, utilize advanced data analytics and artificial intelligence (AI) to analyze vast amounts of maritime data, including AIS signals, satellite imagery, shipping manifests, and historical shipping patterns.
- Develop algorithms capable of detecting anomalies in vessel behavior, such as sudden changes in routes, disabling of AIS transponders, or irregularities in ship-to-ship transfers.
- Implement machine learning models to continuously improve the accuracy of identifying suspicious vessels and activities.

**Technology Partnerships**

- Forge partnerships with technology companies specializing in maritime surveillance, cybersecurity, and blockchain technology to develop innovative solutions for tracking and verifying vessel movements.
- Explore the use of blockchain-based platforms for maintaining transparent and tamper-proof records of maritime transactions, including ship registrations, cargo movements, and insurance contracts

On the diplomacy and international relations touchpoint, the US and its allies should look to embed in the deep webs of the shadow companies that Russia has created in order to carry out its global activities. Creating sleeper cells to embed and disrupt these networks from within will aim to systematically target and destroy these channels without any indication of danger or need to change operations on the Russian side, a Trojan Horse if you will.

For specificity, other ways the US and its allies could enforce shore-up their initiatives include:

#### **International Collaboration**

- Strengthen collaboration with international partners, including government agencies, intergovernmental organizations, and private sector stakeholders.
- Share intelligence and data with allied nations and international organizations to enhance the effectiveness of sanctions enforcement efforts.
- Establish joint task forces and information-sharing mechanisms to coordinate responses to sanctions evasion activities across borders.

#### **Regulatory Measures**

- Implement stricter regulations on maritime insurance providers to prevent them from providing coverage to vessels engaged in sanctions evasion.



- Enforce penalties and sanctions on financial institutions, shipping companies, and other entities found to be facilitating or benefiting from sanctions evasion activities.
- Enhance transparency in vessel registration and ownership to prevent the use of shell companies and flags of convenience to conceal the true identity of vessels involved in activities deemed detrimental to the interests of the US and its allies.

### **Continuous Monitoring and Evaluation**

- Establish a dedicated task force or agency responsible for monitoring and evaluating the effectiveness of sanctions enforcement measures.
- Conduct regular assessments of existing methodologies and technologies to identify areas for improvement and innovation.
- Adapt and refine strategies based on lessons learned and emerging threats in the evolving landscape of sanctions evasion

To top this off, cross-country capacity building and training for law enforcement, regulatory agencies, as well as industry partners will help greatly in sanctions enforcement efforts. This can then be followed up with equipping the relevant personnel with the effective skills, tools and support in order to identify, investigate, and combat sanctions evasion activities in the maritime domain.

## References

- Braw, E., & Kramer, F. D. (2024, January 11). *Russia's growing dark fleet: Risks for the global maritime order*. Atlantic Council. Retrieved April 8, 2024, from <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/russias-growing-dark-fleet-risks-for-the-global-maritime-order/>
- Chambers, S. (2023, November 1). *Growth of the shadow fleet has made Russian oil price cap 'unenforceable': World Bank - Splash247*. Splash 247. Retrieved April 8, 2024, from <https://splash247.com/growth-of-the-shadow-fleet-has-made-russian-oil-price-cap-unenforceable-world-bank/>
- Exclusive Report - The fleet operating in opaque markets - one year since the EU import ban*. (2023, December 4). Vortexa. Retrieved April 8, 2024, from [https://marketinfo.vortexa.com/rs/837-MZE-578/images/Vortexa-Exclusive-Report-Opaque-Markets-Dec2023.pdf?version=0?utm\\_source=Website&utm\\_medium=Medium&utm\\_campaign=2000.EU-Ban-Anniversary--Report](https://marketinfo.vortexa.com/rs/837-MZE-578/images/Vortexa-Exclusive-Report-Opaque-Markets-Dec2023.pdf?version=0?utm_source=Website&utm_medium=Medium&utm_campaign=2000.EU-Ban-Anniversary--Report)
- Hammer, M., Chalfant, M., & Goba, K. (2024, March 19). *Russian tanker collision reveals 'catastrophic' risk of shadow fleet*. Semafor. Retrieved April 9, 2024, from <https://www.semafor.com/article/03/19/2024/russian-tanker-collision-shows-catastrophic-risk-of-shadow-fleet>
- How is a 'shadow fleet' hindering efforts to help Ukraine?* (2023, February 15). The World Economic Forum. Retrieved April 8, 2024, from <https://www.weforum.org/agenda/2023/02/shadow-fleet-hurting-efforts-to-defund-the-invasion-of-ukraine/>

Hunter, A., Steel, A., & Smith, G. (2023, February). *Russia's 'Shadow Fleet' of Tankers Swells to 600 Ships, Trafigura Says*. gcaptain.

<https://gcaptain.com/russias-shadow-fleet-of-tankers-swells-to-600-ships-trafigura-says/>

*Illuminating Russia's Shadow Fleet*. (2024). Windward.AI. Retrieved April 8, 2024, from

<https://windward.ai/knowledge-base/illuminating-russias-shadow-fleet/>

*IMF Data Mapper* ®. (2023). IMF Data Mapper ®. Retrieved April 8, 2024, from

<https://www.imf.org/external/datamapper/profile/RUS>

*Oil Market Report - May 2023*. (2023, May). iea.

<https://www.iea.org/reports/oil-market-report-may-2023>

Reed, S. (2023, February 7). *How Russia Is Surviving the Tightening Grip on Its Oil Revenue (Published 2023)*. The New York Times. Retrieved April 8, 2024, from

<https://www.nytimes.com/2023/02/07/business/russia-oil-embargo.html>

Triebert, C., Migliozi, B., Cardia, A., Xiao, M., & Botti, D. (2023, May). *Fake Signals and American Insurance: How a Dark Fleet Moves Russian Oil*. nytimes. Retrieved April 9, 2024, from

<https://www.nytimes.com/interactive/2023/05/30/world/asia/russia-oil-ships-sanctions.html?auth=login-google1tap&login=google1tap>

*2 Dark Fleet Risks You're Overlooking*. (2023, October 5). Windward.AI. Retrieved April 8, 2024, from <https://windward.ai/blog/2-dark-fleet-risks-youre-overlooking/>

*What are the sanctions on Russia and have they affected its economy?* (2024, February 23).

BBC. Retrieved April 8, 2024, from <https://www.bbc.com/news/world-europe-60125659>

*Why Russia Has Been So Resilient to Western Export Controls*. (2024, March 11). Carnegie Endowment for International Peace. Retrieved April 9, 2024, from

<https://carnegieendowment.org/2024/03/11/why-russia-has-been-so-resilient-to-western-export-controls-pub-91894>