

Preventing the Erosion of U.S. Enforcement Mechanisms Against the Shadow Fleet

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KEY TAKEAWAYS

- The shadow fleet has become a critical sanctions evasion mechanism that enables authoritarian states such as Russia and Iran to generate billions in revenue outside of transactions settled in U.S. dollars.
- Existing sanctions tools are being outflanked by increasingly sophisticated deception tactics, including Automatic Identification System (AIS) manipulation, ship-to-ship transfers, identity cycling, and opaque ownership structures.
- As a result, traditional sanctions that target vessels alone are insufficient; effective sanctions enforcement must extend to ports, service providers, and recruitment networks that enable shadow fleet operations.
- Additionally, recent tanker seizures demonstrate that interdiction and forfeiture can impose immediate costs on illicit energy trade and disrupt revenue. But current U.S. efforts remain episodic and constrained by fragmented authorities, limited coordination, and insufficient operational infrastructure.
- For the United States to begin countering and dismantling the shadow fleet, the U.S. Congress needs to invest in institutional capacity to make seizures of sanction evaders a long-standing international norm.

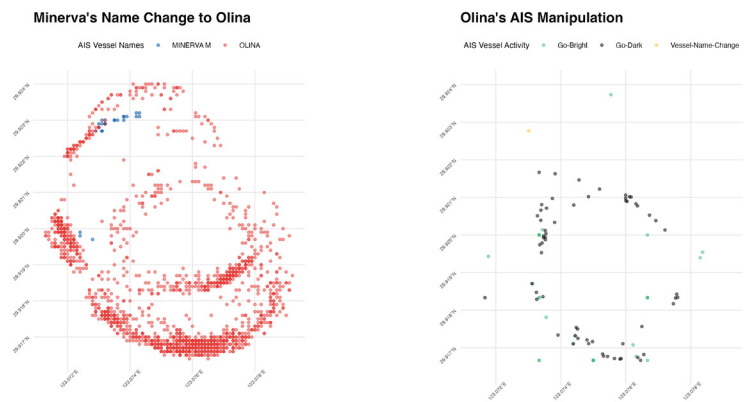
BACKGROUND AND CONTEXT

Russia, Iran, and China are circumventing U.S. sanctions by using aging tankers to illicitly move sanctioned oil and liquefied natural gas (LNG). These tankers attempt to hide their identities by turning off their GPS transponders, manipulating their locations, and using unregistered names or flags. In addition, they are often registered to shell companies based in countries with relaxed enforcement, allowing them to circumvent sanctions and concerns over safety and the environment. Together, the ships represent a “shadow fleet,” which poses a threat to U.S. security interests by generating illicit revenues for autocratic regimes.

U.S. sanctions on **Russian** and **Iranian** oil are designed to eliminate or restrict revenue by penalizing entities that buy, sell, or transport their oil. As a result, autocratic regimes have established a black market for sanctioned oil by **leveraging** the shadow fleet, reportedly earning Russia between **\$87 and \$100 billion**, Iran between **\$50 and \$56 billion**, and Venezuela an estimated **\$18 billion** in annual oil revenues. Beyond eliminating or restricting revenue, U.S. sanction authorities for the president need to be updated to improve targeting suspected vessels and the networks of support they rely on to circumvent sanctions and move sanctioned states’ oil to market.

Additionally, while the United States and its allies are actively chasing and seizing shadow fleet tankers, there is a growing need for additional institutional capacity to make seizures a long-standing norm. Oil tanker seizures demonstrate that the United States retains leverage over the shadow fleet when sanctions and deterrence are actively enforced, and enforcement increasingly requires the right set of institutional capabilities tailored for the long term.

Figure 1: Sanctioned Vessel Olina AIS Manipulation



Note: The graph shows a suspected shadow fleet tanker’s name changes and AIS activity from January and February of 2025. The left side shows its original name, Minerva (blue), changing to Olina (red), a common tactic to evade detection. The right side shows the vessel’s movements when it turns off and back on its GPS and when it changes its name.

Source: Author’s analysis of the shadow fleet tanker Olina, also known as Minerva M. Data from General Atomics Optix.

LEGISLATIVE AND POLICY IMPLICATIONS

There are currently several bills being considered in Congress that attempt to address the threat to U.S. security interests emanating from the shadow fleet.

S.2904, the **SHADOW Fleet Sanctions Act of 2026**, provides a framework for the U.S. president to sanction entities that support Russia's use of the shadow fleet. However, its effectiveness will depend on whether it captures the full range of current deception techniques and whether it empowers the president to sanction their broader enabling ecosystem.

S.1490, the **GHOST Act of 2025**, and S.1103, the **Vessel Tracking for Sanctions Enforcement Act of 2025**, would enable sustained, lawful interdiction by funding an Export Enforcement Coordination Center (E2C2) within the Department of Homeland Security and piloting big data analytics within the National Targeting Center to identify and disseminate intelligence on vessels of interest based on travel patterns, ownership, and AIS manipulation. These bills can be enhanced by clarifying penalties for AIS manipulation that strengthen the legal foundation for maritime enforcement. In addition, the E2C2, paired with intelligence fusion and multilateral diplomatic initiatives, could shift U.S. enforcement from ad hoc seizures toward durable deterrence against shadow fleet operations.

RECOMMENDATIONS

Countering and dismantling the shadow fleet will require a range of support from Congress. Recommended adjustments to the bills under consideration include the following:

- Adding language to S.2904 to cover manipulations to AIS message transmission; in addition to ships turning off their transponders, the bill can also cover practices such as manipulating draft data to hide cargo levels, changing vessel names or flag registrations, spoofing locations, and changing Maritime Mobile Service Identities (MMSIs).
- Empowering the president to also target LNG and, separately, any blending, commingling, or alteration used to hide the origin of Russian oil.
- Targeting foreign ports and facilities that provide services to shadow fleet vessels, including maintenance, repair, and crew staffing. In particular, targeting ports and port facilities in the Western Hemisphere could help close the enforcement gap after suspected shadow fleet tankers or smugglers were sighted in **Ecuador**, **Colombia**, and **Brazil**.
- Adding a section in S.1490 to fund the procurement and training of interoperable AIS data-fusion platforms and business intelligence tools essential for cross-validating reports from reporting agencies to E2C2 staff. This will allow for greater deconfliction, integrated tracking, and enhanced targeting capabilities.
- Including a section in S.1490 to fund outside cross-validation or alternative analysis studies by nongovernmental organizations to identify capability gaps, emerging threats, vessel patterns, or other areas of need by the E2C2 and its agency members.
- Including a section in S.1490 to direct the U.S. Treasury's Office of Foreign Assets Control (OFAC) to enhance their sanction database by systematically recording, releasing, and updating historic vessel names, International Maritime Organization registration, MMSIs, and ownership of all sanctioned ships when entering the **OFAC sanction list** and every financial quarter thereafter.

ADDITIONAL RESOURCES

Benjamin Jensen and Jose M. Macias III, "Ghost Busters: Options for Breaking Russia's Shadow Fleet," CSIS, *Commentary*, December 15, 2025, <https://www.csis.org/analysis/ghost-busters-options-breaking-russias-shadow-fleet>.

Jose M. Macias III, "What the Bella-1 Teaches Us About Targeting Shadow Fleets," CSIS, *Critical Questions*, January 8, 2026, <https://www.csis.org/analysis/what-bella-1-teaches-us-about-targeting-shadow-fleets>.

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