

**UNNATURAL DRIFTING PATTERNS:** Researchers said they expect to see greater use of the tactics in Russian-related oil trades after 5 December.



# Data casts light on the rise of the high-tech 'dark fleet'

Researchers warn of rapid growth in sophisticated vessel camouflage techniques

Paul Peachey  
London

The use of new techniques to disguise the movement of "dark fleets" is increasing rapidly as owners try to avoid economic and reputational damage of being identified as carriers of sanctioned oil, according to new research.

The events represent a technological advance on the tactic of "going dark" when ships turn off AIS systems to enter ports unnoticed or carry out ship-to-ship transfers of sanctioned oil, according to data firm Windward.

The Israel-headquartered technology company said that since early 2021 it had identified 265 vessels involved in 600 cases of a new wave of tampering with global navigation satellite systems to disguise a vessel's true location.

More than half of them happened near Iran, it said, and all but seven of the ships were tankers.

Half of them were sailing under a Panama flag, with Liberia, Cameroon, Cyprus and Palau-flagged vessels also identified in numerous events.

The technique involves plugging military-grade software into existing AIS systems at the cost of just a few hundred dollars, according to the group's researchers.

In some cases, the technique steals the data footprint of ships at anchor elsewhere in the world and transmits the signals from their own tampered system so it appears the dark ship is doing the same thing. Instead, the vessel might have gone dark and is involved in moving sanctioned oil.

Windward said the techniques had the advantage for illicit operators of never appearing to break normal trades — thus avoiding investigations for going dark by



**WINDWARD:** Co-founder Matan Peled (left), with CEO Ami Daniel, warned of new techniques used to hide ships involved in the illicit oil trade

Photo: Windward

flag states or being shunned by marine insurers or financiers.

The International Maritime Organization says the AIS should only be switched off for safety reasons or where "security incidents are imminent" and should be reported.

**'STILL POPULAR'**

"Going dark is still popular, but sophisticated bad actors now understand that a vessel worth millions of dollars is too expensive to risk going dark for a single transaction," Windward said.

It cited the case of an unidentified Liberian-flagged product tanker that changed ownership and name before it started to operate between the Middle East Gulf and China.

It said AIS signals appeared to show that it was just outside Iraq's Basrah oil terminal in February 2021 but researchers picked

up on apparently unnatural drifting patterns.

Windward researchers said they believe the tanker's navigation systems had been tampered with and the ship was in fact 73 nautical miles (135 km) away at Kharg Island, a key Iranian loading terminal, with its AIS switched off.

The most advanced camouflage techniques identified by researchers include the use of a decoy vessel that sails close to a tanker that is planning to load sanctioned cargoes.

The second ship assumes the dirty vessel's identity in a move dubbed the "AIS handshake" and remains idle while the second ship goes dark and loads sanctioned oil. They then rendezvous for a second time after loading and switch back.

Windward also identified how a ship had assumed the identity of a vessel that had already been

scrapped, allowing it to transport sanctioned cargoes without repercussions.

"Whoever is doing this technique is fooling an existing device deeply rooted in the maritime domain," said Matan Peled, a founder of Windward. "It's supposedly as simple as unplugging something and plugging in something else."

"The incentive is when you try to trade illicit goods that cost millions. Envisage a tanker carrying 1m barrels of oil — that's the stake, that's how important it is to be successful."

**CAT AND MOUSE**

"It's a classic cat-and-mouse game."

Researchers said they expect to see greater use of the tactics in Russian-related oil trades after Europe bans imports of Russian crude after 5 December.

Russia is seeking alternative markets for its oil but some prospective and current importers are thought to be concerned about relations with G7 nations, which is pushing for a price cap.

A price cap system is designed to allow marine services to remain involved in Russian oil trades outside of Europe without breaking sanctions.

But the failure of any plan is likely to lead to a sharp increase in dark trades involving Russia, said energy data analyst Vortexa.

It said it was tracking 11 tankers that had previously been carrying Iranian oil. It has identified four Chinese-owned VLCCs involved in dark STS transfers of Urals crude in the Atlantic that had either unloaded in China over the last month or were believed to be on their way.

## Is China switching from Russian oil?

Gary Dixon

Brokers believe China is turning away from Russian oil as it seeks to boost refinery supplies.

Last week, VLCCs continued to be fixed in large numbers from the Middle East, the US Gulf and West Africa to feed hungry importers, with average rates hitting a two-year high.

The Embiricos-owned, 318,000-dwt Poros (built 2008) has a deal lined up on subjects at \$67,400 per day for a 53-day trip from the Middle East to China for Northern Petroleum.

Four other VLCCs were booked on Friday last week, including two from West Africa to India.

This followed 11 other reported fixtures, as Chinese refiner Unipac snapped up eight ships.

Reports suggest China intends to use the country's refineries as a "swing door" to serve the world's needs for the most sought after petroleum products, mainly gasoil, which is sorely needed in Europe and in the US because of the energy crisis, Oslo shipbroker Lorentzen & Co said.

**CHANGING CHANNELS**

"That means China could take over the role of India that hitherto has amassed crude from Russia and other providers to make gasoil for the Western markets," chief shipping analyst Nicolai Hansteen said.

He added that refiners seem, at least partly, to be changing channels from imports of Russian oil over to non-Russian oil, as sanctions are tightening and prices for Urals and ESPO grade crude become more uncompetitive.

In July, China's imports from Russia were reduced from the previous month. August's figures will reveal whether this trend has continued.

"What is apparent is that China's state-run refineries have been unusually active in committing tonnage carrying oil from non-Russian origins ... creating a rally in the VLCC market," Hansteen said.



**DIFFERENT PATHS?** Russian President Vladimir Putin (left) and Chinese President Xi Jinping

Photo: Scamper