# Understanding Illicit Trade & Sanctions in Shipping

March 2019

*With the UN, the US treasury, and other national regulators focusing more extensively on global maritime trade, the need to keep pace with an ever increasingly complex sanctions landscape is vital.*

This March 2019, the UN panel of experts (PoE) tasked with monitoring the implementation of UN Security Council sanctions on North Korea released its long-awaited annual report. The extensive report exposes a wide range of activities by which North Korea has continued to evade sanctions, with special focus on maritime trade and the increasing complexity of concealment methods now being used by North Korea and third-party facilitators in this sector.

Following this, the US Department of the Treasury's Office of Foreign Assets Control (OFAC) released updated guidance on addressing North Korea, Syria, and Iran's illicit shipping practices. Like the UN-PoE report, the advisory explores deceptive shipping practices, as well as recommended risk mitigation methods.

**The current North Korean sanctions landscape**

Since North Korea's first nuclear test in 2006, the country has had an array of sanctions imposed by global regulators. In December 2017, the UN Security Council passed Resolution 2397, restricting imports of crude and petroleum products in North Korea. However, last week's UN report has exposed how ineffective the implementation and enforcement of these sanctions have been.

Currently, the UN PoE on North Korea sanctions is investigating possible violations of sanctions in 20 countries. According to the OFAC Advisory, in 2018 alone, North Korean ports were involved in at least 263 tanker deliveries of refined petroleum via ship-to-ship (STS) transfers, a deceptive shipping practice now barred by the UN. These transfers "have increased in scope, scale, and sophistication with more than 50 vessels and 160 associated companies under investigation", the UN report notes.

# Deceptive shipping practices

There is a range of deceptive shipping practices which are being used by North Korean state actors and shipping companies as well as third parties in efforts to conceal the identities of vessels and their cargo, including origin and destination.

## Disabling or Manipulating Automatic Identification System (AIS):

Vessels conducting ship-to-ship transfers will typically disable their respective AIS systems to evade detection, facilitating illicit trade. Alternatively, vessel's masters can manipulate the data transmitted by their AIS to conceal the vessel's next port of call and other information regarding its voyage. Such AIS manipulation includes altering the transmitted vessel name, IMO number, and Maritime Mobile Service Identity (MMSI), for the sole purpose of evading detection.

The UN PoE report states that "the manipulation of vessel AIS transmissions remains an overarching feature of illegal transfers", which is not being taken into account by most global and regional commodity trading companies, banks and insurers, whose due diligence efforts fall extremely short [...]. Many of the vessels involved in such transfers routinely engage in identity fraud and other activities contrary to both UN Convention on the Law of the Sea (UNCLOS) and IMO regulations". (UN PoE Report S/2019/171)

### Understanding the restrictions of AIS-only vessel tracking systems

AIS is an internationally regulated maritime safety and navigation-related system, originally introduced to improve maritime safety as a collision avoidance system. Over VHF radio channels, AIS transmits vessel identification information, including name, IMO number, and MMSI, along with select navigational and positional data including latitude, longitude, speed, direction and course.

### Terrestrial and Satellite AIS

AIS equipment aboard vessels broadcasts and receives a range of message types to and from other ships and ashore. Such terrestrial ship-ship and ship-shore AIS generally have a range of approximately 20 nautical miles. Satellite systems are able to collect the same AIS signals, though with some technological limitations.

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## Limitations

As described, AIS is open to manipulation. The equipment aboard ships can be easily switched off to avoid detection, termed "going dark". The manually entered next port of call and destination may be incomplete, incorrect / not updated, or deliberately falsified. Collection of Satellite-AIS data is a challenge and may not be as complete as terrestrial AIS due to message collection and latency limitations.



*Source: Windward*

An example of spoofing: Yuk Tung (Maika) begins spoofing Hika (Mahika)

## MMSI numbers and spoofing

AIS messages contain an MMSI identifier, which are managed and regulated internationally by the International Telecommunication Union and allow maritime communications equipment to be uniquely identified as a ship or coast radio station. They are issued and associated to ships upon registration of equipment by authorised bodies including ship registries. MMSI numbers are unique to the equipment rather than the ship, unlike IMO numbers. Therefore, only official MMSIs should be used and must be cancelled if the equipment is moved to another ship or sold. This does not always happen – sometimes deliberately in order to falsify a ship and confuse monitoring & surveillance systems.

## Physically Altering Vessel Identification

"Maritime vessels meeting certain tonnage thresholds are required to display their name and IMO number (a unique, seven-digit vessel identification code) in a visible location either on the ship's hull or superstructure. A vessel's IMO number is intended to be permanent regardless of a change in a vessel's ownership or name." (UN PoE Report S/2019/171)

## Ship-to-ship Transfers

"A ship-to-ship transfer is the movement of cargo from one ship to another while at sea, rather than in port. Ship-to-ship transfers can conceal the origin or destination of the transferred cargo." (UN PoE Report S/2019/171)



Democratic People's Republic of Korea-flagged tankers engaged in ship-to-ship transfers with unknown vessels, June to August 2018

## Falsifying Cargo and Ship Documents

"Complete and accurate shipping documentation is critical to ensuring all parties to a transaction understand the parties, goods, and vessels s involved in a given shipment. Bills of lading, certificates of origin, invoices, packing lists, proof of insurance, and lists of last ports of call are examples of 4 documentation that typically accompanies a shipping transaction." (UN PoE Report S/2019/171)

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# Risk Mitigation Measures

The continued use of deceptive shipping practices globally poses a significant sanctions risk for parties involved in the shipping industry, including financial institutions, shipping companies, flag registries and insurers.

OFAC's advisory offered several measures to help mitigate risks:

- Research a ship's history to identify regular AIS manipulation
- Promote continuous AIS broadcasts
- Monitor for AIS manipulation and disablement
- Petroleum supply chain due diligence
- Conduct research prior to ship-to-ship transfers
- Review all applicable shipping documentation
- Clear communication with international partners
- Leverage available resources

# Leveraging available resources; Pole Star's hybrid tracking solution

While AIS data is a valuable source of information for the increasing number of banks, trading companies & maritime insurers needing to monitor vessel movements, a hybrid tracking solution incorporating Inmarsat data can provide the additional security for these institutions. The Inmarsat network is secure, real-time vessel tracking system, providing positions that are less vulnerable to manipulation.



Pole Star's multi-award winning PurpleTRAC technologies enable our users to screen and monitor their maritime trade exposures within a single cloud-based application. PurpleTRAC automates, streamlines and records complex compliance processes in a matter of seconds.

**Vessel Screening:**  PurpleTRAC allows users to extensively screen a vessel by entering the vessel's name or IMO number, producing definitive results and auditable compliance records in seconds

**Vessel monitoring:**  Following the screening process, users can elect to monitor a vessel, whereby they are automatically re-screened every 24 hours. This allows users to engage our hybrid satellite tracking technologies incorporating terrestrial & satellite AIS data, as well as Inmarsat secure real-time tracking data.

**Reporting:**  Our PurpleTRAC systems automatically collates all screening and monitoring activity and events in incorruptible & auditable reports & archives.

With these tools, our commercial users are able to track vessels with the world's leading satellite technologies, while monitoring any changes in the regulatory status of vessel ownership & management.

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*PurpleTRAC Awards*
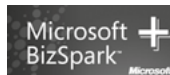


*Find out more*

Learn more about PurpleTRAC:
**www.polestarglobal.com/purpletrac**

Read the full UN PoE report:
**www.undocs.org/S/2019/171**

Read the OFAC Advisory:
**www.bit.ly/Advisory2019**

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