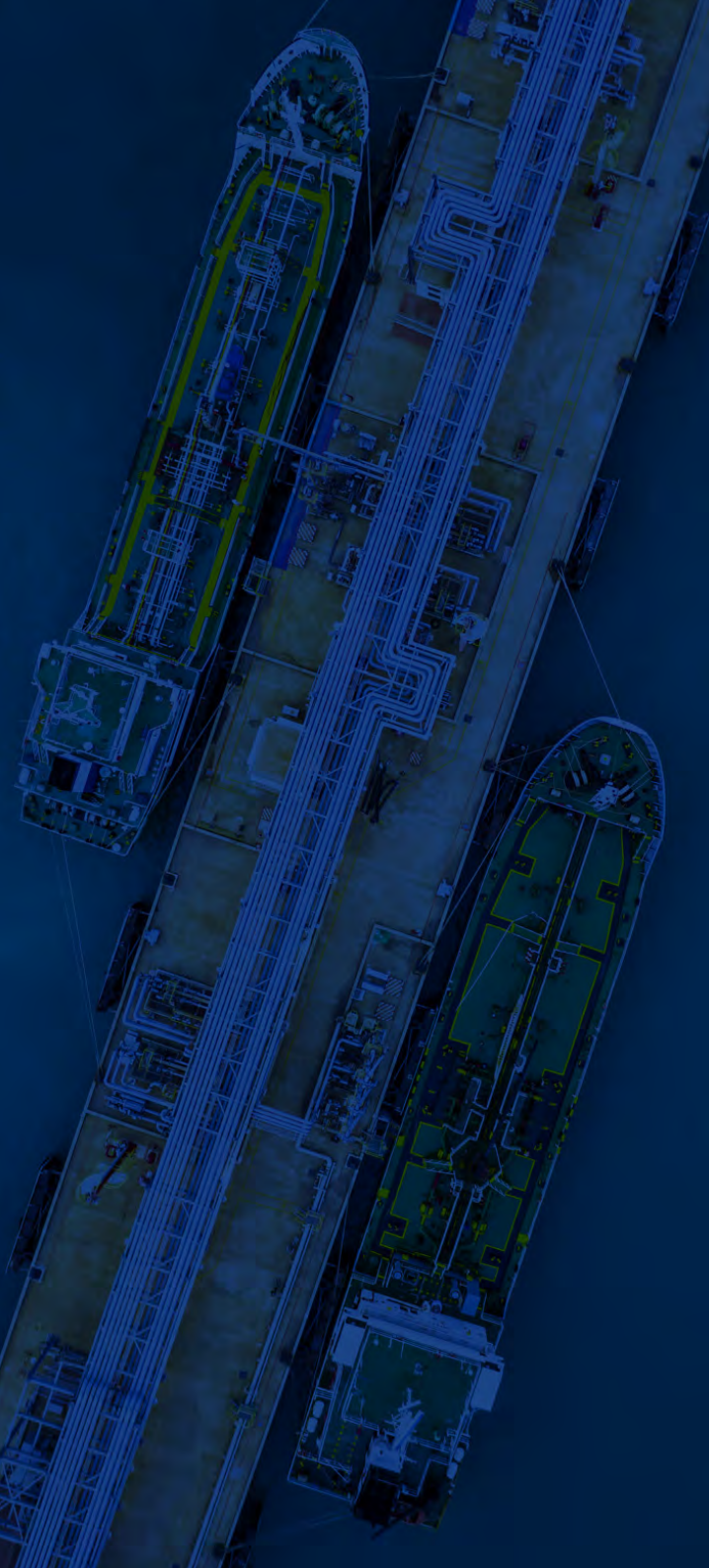




MIS Compliance

Observing the Bigger Picture



Protecting more than just the environment

A shared goal of the oil industry is the continuous improvement to safety and environmental protection. As part of this goal, vetting and assurance practices have become ever more advanced in order to furthermore ensure safety, protect the environment and safeguard parties against unwanted associations.

Understanding the future of vetting and the natural progression the review process of a vessel and its associations will take, MIS is developing more sophisticated and automated solutions to provide awareness of any potential risks posed by vessels and companies under sanction or that may have been involved in suspicious activities.

MIS Compliance now provides two new data feeds available through Mainstay:

 **MIS** Compliance | Sanctions

 **MIS** Compliance | Geolocation

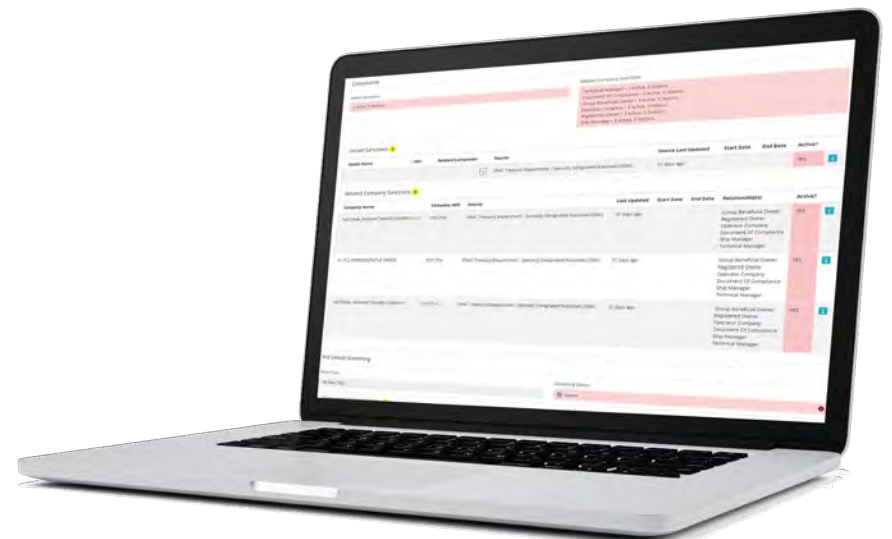
Used in conjunction or as standalone information entities, **MIS Compliance - Sanctions** and **MIS Compliance - Geolocation** support your sanction and suspicious activity awareness and strengthen your decision-making and reputation security.

MIS Compliance | Sanctions

MIS Compliance – Sanctions integrates with multiple sources of sanction data.

Sanctioned data is pulled into MIS Compliance directly from the associated sources for all vessels and companies listed within them.

If a sanction is no longer enforced by a governing body, the date that the sanction ended is recorded and maintained, building a history of sanctioned vessels and companies, in addition to a current sanctions list.





Sanction Data Sources

- **OFAC**
 - DPRK Annex 4
 - DPRK Annex 5
 - Sectoral Sanctions Identifications List (SSI) - Treasury Department
 - Countries against which an OFAC programme is enforced
 - Specially Designated Nationals (SDN) - Treasury Departments
 - Capta List (CAP) - Treasury Department
 - Foreign Sanction Evaders (FSE) - Treasury Department
 - Iranian Shipping Advisory
 - Syrian Shipping Advisory
 - Non-SDN Menu-Based Sanctions List (NS-MBS List) - Treasury Department
 - Non-SDN Chinese Military-Industrial Complex Companies List (CMIC)
 - Non-SDN Iranian Sanctions Act (NS-ISA List)
 - Non-SDN Palestinian Legislative Council (NS-PLC List)
- **Bureau of Industry and Security**
 - Denied Persons List (DPL)
 - Entity List (EL)
 - Unverified List (UVL)
 - BIS Military End User List (MEU)
- **Australian Government**
 - DFAT
 - AMSA - Refusal of Vessel Access List
- **UN**
 - Vessels list 2321, 2270, 2270 Annex 3, 2371, 2375, 1718
 - UN Sanctions list
- **FATF Jurisdiction**
 - High Risk Countries
 - Monitored Countries
- **US Department of Justice Environmental Compliance Program (USDOJ ECP)**
- **USCG**
 - Banned Vessels List
 - Targeted Ship Management - Safety
 - Targeted Flag Administrations- High Risk
 - Targeted Flag Administrations - Medium Risk



Sanction Data Sources (Continued)

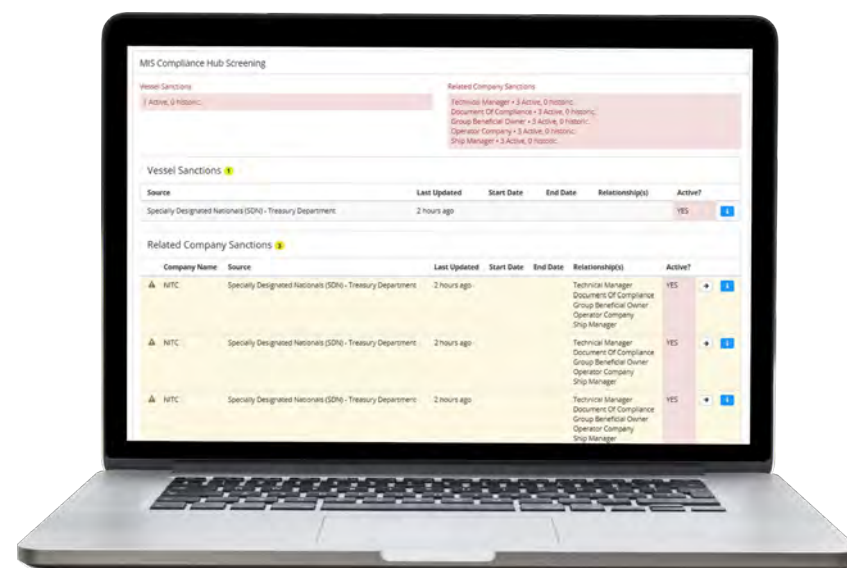
- **State Department**
 - ITAR Debarred (DTC)
 - Nonproliferation Sanctions (ISN)
- **Paris MOU Banned Vessels List**
- **UK Sanctions**
- **EU Sanctions List**
- **Switzerland Sanctions List (SESAM)**
- **Canadian Sanctions List (SEMA)**
- **Japanese Foreign Exchange and Foreign Trade Act Sanctions List**
- **New Zealand Ministry of Foreign Affairs and Trade: Russia Sanctions Register**
- **UAE Local Terrorist List**
 - Entities included in the domestic terrorist List
 - Individuals included in the domestic terrorist List
 - Organisations included in the domestic terrorist List
- **Mediterranean MoU Refusal of Access List**
- **Black Sea MoU Under Performing Ship List**
- **Indian Ocean MoU**
 - Banned Vessels List
 - Watched Vessels List
 - Under Performing Vessels List
- **Tokyo MoU**
 - Under Performing Ship List
 - Black Flag List
 - Grey Flag List
- **The Registre National Des Gels (National Freeze Registry)**
- **EU**
 - Sanctions List
 - Council Regulation 833/2014 Annex XLII
- **Inter-American Development Bank - Sanctioned Firms and Individuals List**

Sanctions Alerts

Highlighting all identified sanctions in the vessel and company information summary immediately alerts the user to any associated compliance issues. All sanction details relevant to your vetting process will be displayed in the MIS Compliance window.

All data provided by sanction sources concerning a vessel or company are stored within MIS Compliance. Rules will identify and flag if a vessel or related company has any active or inactive sanctions. The related companies include the seven key relationships (Technical Manager, Registered Owner, Operating Company, Document of Compliance Holder, Bareboat Owner, Ship Manager and Group Beneficial Owner), as recorded in Mainstay.

The rules will look at the history of these relationships to see if a vessel held a relationship to a company when the company had an active sanction. Any amends to recently changed company relationships will also be looked at to highlight where a change of ownership could potentially signal an attempt to avoid a sanction. If a company relating to the vessel also holds a relationship with any other sanctioned vessels, this information will be collected.



A large cargo ship is shown from a high-angle perspective, sailing on a deep blue ocean. The ship is dark-colored with a white superstructure and is moving towards the left side of the frame. The water has a textured, wavy surface.

MIS Compliance | Geolocation

MIS Compliance Geolocation, as its name suggests, is the geo-location derived aspect of the compliance framework, utilising Automatic Identification System (AIS) data to determine a vessel's movements.

Information gained through MIS Compliance Geolocation can be automated to capture three main concerns:

- Visits to sanctioned locations/areas of concern
- Periods of 'dark activity'
- Potential ship-to-ship transfers (STS).

Various pre-loaded 'layers' can be turned on and off to display events and insights that coincide with the Navigation History and any user defined parameters.

Geolocation Layers

Navigation History

Carbon Intensity Model (CIM)

Emission Control Areas

Port Visits

Vessel Stops

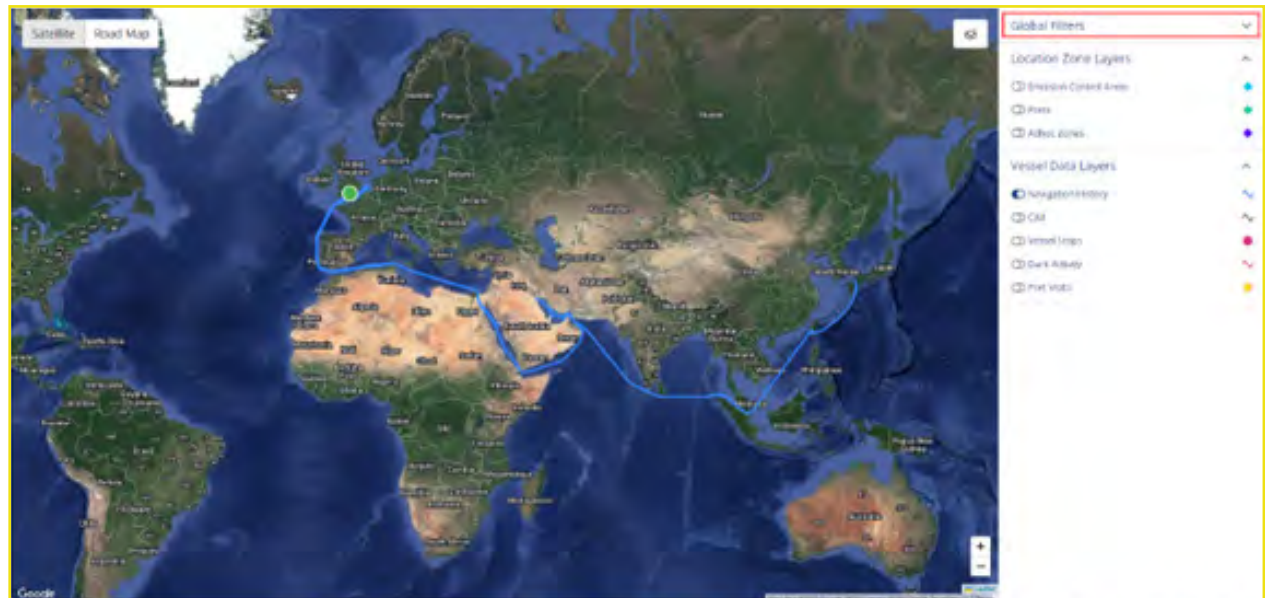
Adhoc Zones

Dark Activity

Ship-to-Ship Transfers (STS)

Navigation History

The Navigation History layer displays a vessel's voyage path and operations over a defined time period. Defaulting to 12 months from the current date, the duration can be adjusted to specific time periods and the map can be filtered to display various location zones such as Emission Control Areas, Ports and Country Boundaries (EEZ and Territorial).



A visual representation of a vessel's journey from Japan to the United Kingdom.

Geolocation Layers

Navigation History

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Vessel Stops

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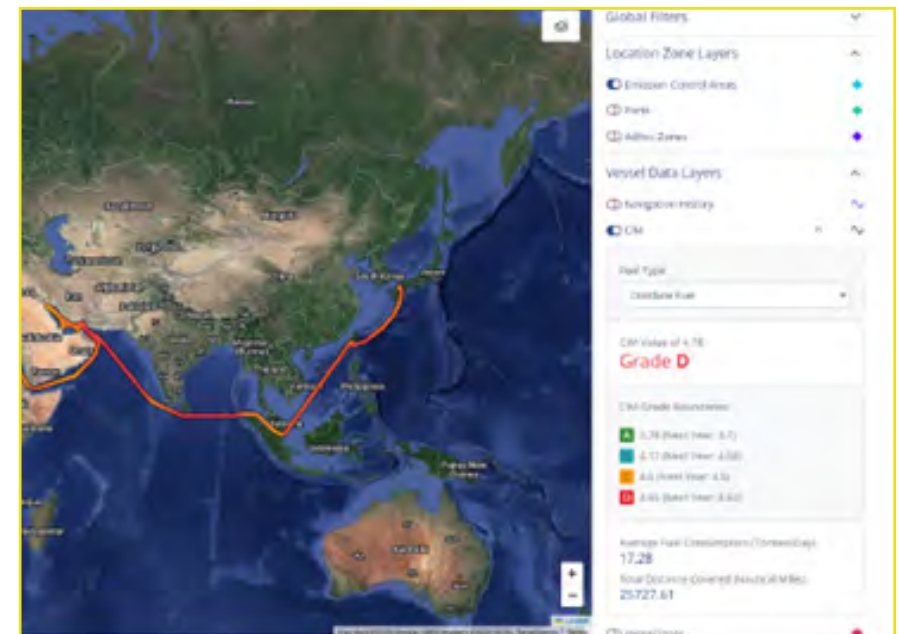
Carbon Intensity Model (CIM)

Carbon Intensity Model (CIM) is MIS Marine's own data model that addresses limitations with the industry-standard Carbon Intensity Indicator (CII). It assigns a letter grade to a vessel that equates to carbon emitted per tonne of cargo carried per mile. Unlike CII, CIM does not require the vessel to hold a HVPQ6.

CIM is calculated using various sources of particulars data, along with operational information from geospatial data and weather/tide data. This allows CIM to be calculated precisely for a specific timeframe unlike CII, which only provides a value for the complete last year of operation.

Activating the CIM layer in MIS Geolocation will provide a grade for the vessel over the defined voyage parameters, displaying a visual representation of its environment performance at all stages of its Navigation History.

The ability to modify criteria details of the voyage (e.g., fuel type) enables the user to preview the potential carbon performance of a voyage with amended criteria.



A visual representation of a vessel's CIM grade along its voyage route.

Geolocation Layers

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Emission Control Areas

The Emission Control Areas (ECA) layer displays all current ECAs on the map.

Used in conjunction with a vessel's Navigation History, the map will display where a vessel has entered an ECA.



A vessel's Navigation History with ECAs displayed.

Geolocation Layers

Navigation History

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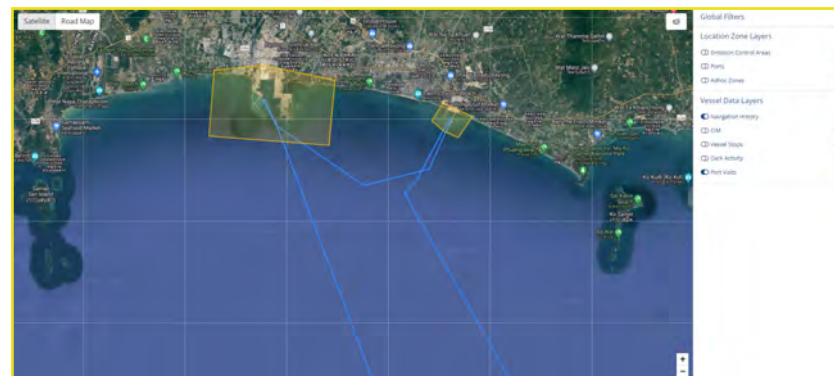
Port Visits

When active, the Ports Visits layer displays all preconfigured port locations (based on LOCODE), providing visibility of port locations and span within the vicinity of a vessel's Navigation History.

Pre-loaded 'geo-fences' are drawn around all UN known ports to determine the boundaries of each port. If a vessel is identified to have crossed this boundary, the port area and boundary will be displayed on the map in yellow.

Clicking on a yellow port zone will display the date range that the vessel was within the port boundaries.

It is important to note that a Port Visit does not denote that a vessel stopped at the port. It is only an indication of the vessel's location within the port's defined zone.



Port zones highlighted displaying a Port Visit.

Vessel Stops

Our extensive data source, comprising over 10,000 berth location zones and continuously expanding, is now fully integrated into our geolocation analyses and operational processes.

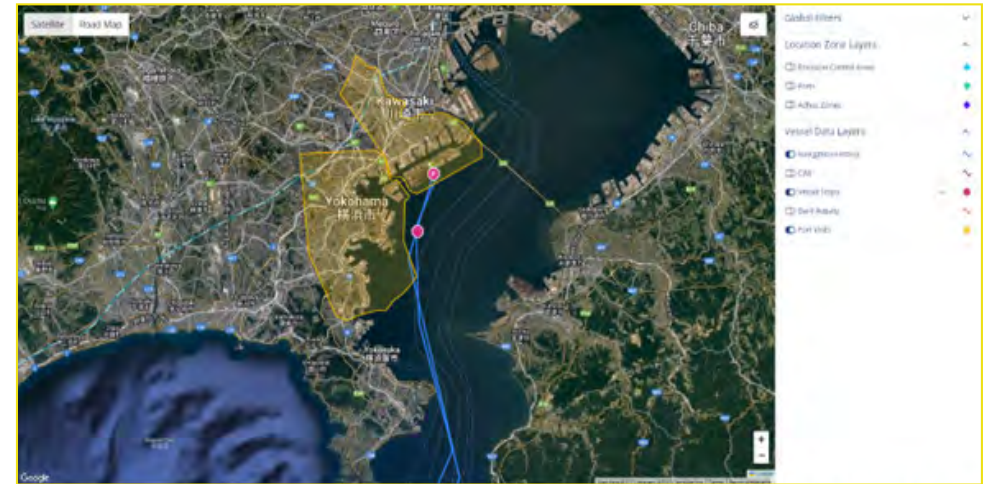
This robust dataset enhances accuracy and efficiency, providing a critical foundation for delivering precise location-based insights. If a Vessel remained stationary for longer than a specific length of time, identified either through the status of AIS message received or by a lack of identified movement, it will be recorded as a Vessel Stop.

This will be displayed on the map by a red marker.

Any potential ports zones or countries that the vessel could have stopped in will be identified and displayed on the map.

- If the vessel is deemed to have stopped within a port zone, the red marker will contain a 'P'.
- If the vessel is deemed to have performed an STS, the red marker will contain an 'S'.
- If it is deemed that neither a Port Visit or STS took place, the red marker will contain no letters.

The length of time set to distinguish the event as a Vessel Stop is configurable to user requirement.



Vessel Stops indicated on the map within the vicinity of a port zone.

Geolocation Layers

Navigation History

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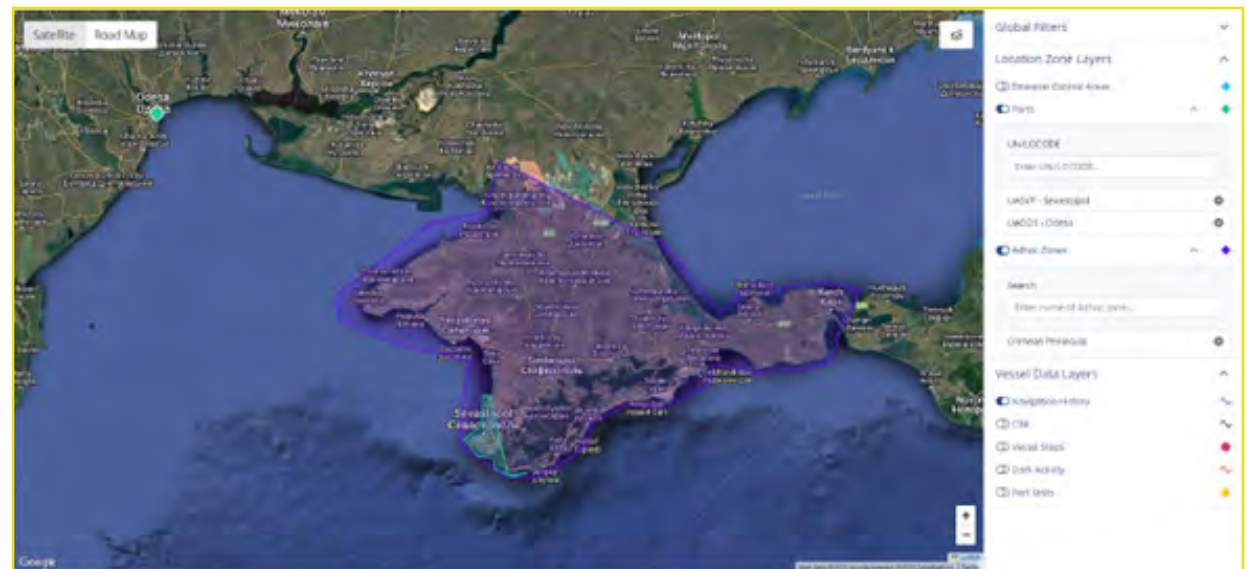
Dark Activity

Ship-to-Ship Transfers (STS)

Adhoc Zones

The Adhoc Zones layer highlights areas of interest (sanctioned and/or suspicious locations or countries) on the map. These areas are configured upon customer request. This list can be amended as requirements and concerns change.

Rules can be set up based on Adhoc Zones to alert the user of a vessel entering an area of concern.



The Crimean Peninsula Adhoc Zone is highlighted on the map.

Potential Dark Activity

The Dark Activity layer transposes periods of a voyage where the Automatic Identification System (AIS) was disabled on a vessel's navigation history. Key details will be attainable, including:

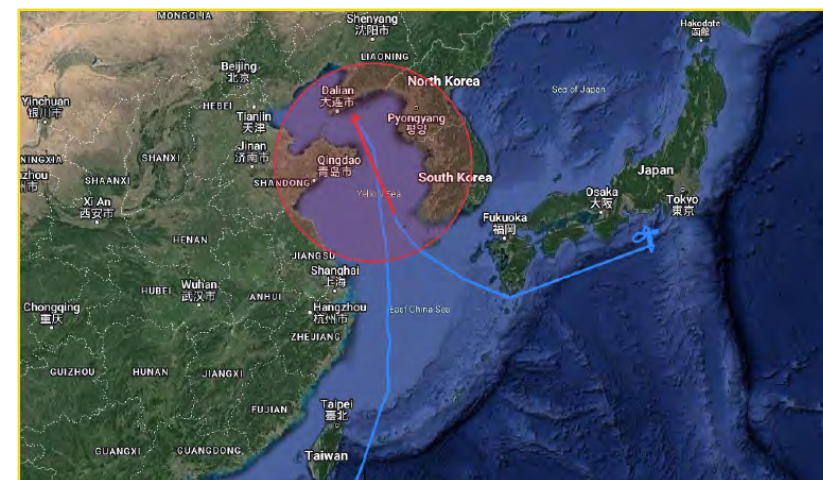
- Location of the disappearance and reappearance
- Duration of the "dark" period
- Projected range of possible travel while "offline" based on speed and dark duration at time of signal loss
- Any change of draught

This information provides key details for targeted questioning on potential dark activity, such as whether the vessel had the opportunity to make an unscheduled Vessel Stop in a sanctioned country or the opportunity for an STS transfer during the timeframe.

MIS Compliance's Dark Activity rule identifies times when the vessel has gone 'dark' for a duration long enough for the vessel in question to have visited a location that the user considers suspicious, or to have conducted an STS transfer with a vessel that the customer might consider to be suspicious.

Once alerted to the instance, these dark activity records can be reviewed (taking into consideration draught, etc.,) allowing for it to be determined whether the period of dark activity is deemed suspicious.

The rule will flag up all dark vessels with an un-reviewed dark activity record or vessels that have been previously reviewed as suspicious.



A period of Dark Activity indicated by a red arrow. The red circle indicates the possible travel range of the vessel whilst AIS was disabled.

Geolocation Layers

Navigation History

Carbon Intensity Model (CIM)

Emission Control Areas

Vessel Stops

Port Visits

Adhoc Zones

Dark Activity

Ship-to-Ship Transfers (STS)

Ship-to-Ship Transfers (STS)

The Dark Activity and Vessel Stops layers provides the opportunity to assess whether an illegal STS had been performed.

The map highlights the vessel of interest and the span of potential travel during its dark period. Any vessels in the vicinity of the potential area of travel during this date/time span are also highlighted.

Pre-loaded rules automatically assess the compatibility of any vessels (vessel type, cargo type) before highlighting in the Dark Activity view. Should a vessel be a potential match for an STS, details of the secondary vessel (vessel particulars, Navigation History, details of draught changes) can be obtained.

Data Restrictions

Due to the significant data processing requirements involved in calculating potential STS activity, Mainstay will provide vessel stop STS activity for the previous 12 months, and dark activity STS from 1st January, 2023.



A period of Dark Activity indicated by a red arrow. The red circle indicates the possible reach of the vessel whilst AIS was disabled.



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