

OCIANA®

RISK MANAGER

Predictability in a Sea of Uncertainty

The maritime environment is constantly evolving. Addressing challenges in this dynamic environment requires a comprehensive solution for risk assessment and mitigation.

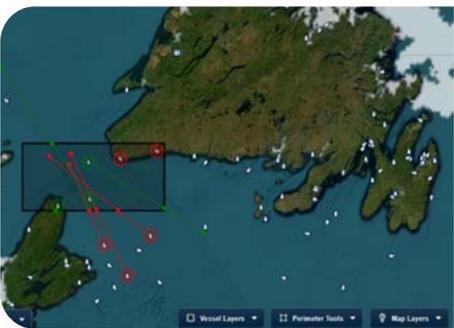
GSTS' solution provides maritime domain awareness to enhance security, commercial and environmental risk detection. OCIANA® Risk Manager aggregates unclassified data sources and applies machine learning pattern-of-life analysis to deliver actionable intelligence in real time. Using powerful predictive insights, OCIANA® facilitates inter-agency collaboration and provides safety and security anywhere in the world.

ENHANCED RISK DETECTION AND MITIGATION WITH OCIANA®



Situational Awareness Display and Common Operating Picture

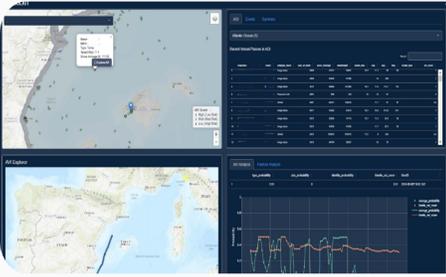
- Multiple sensor data sources aggregated to provide a single picture
- EEZ monitoring
- Awareness in remote regions where sensor coverage is minimal
- Data agnostic – can integrate own data sets



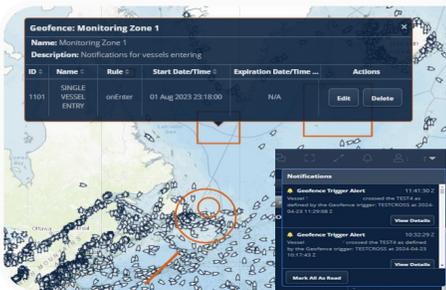
Risk Detection

- Performs continuous data fusion and pattern-of-life analysis
- Detects and mitigates against a multitude of risks including, Dark Vessels, Identity Spoofing, Sanctions Infractions, Trafficking, and Illegal Fishing
- Provides customised alerts and notifications to support real time threat detection and monitoring
- Detection of unusual vessel behavior to ensure safety and security of territorial waters

Advanced Vessel Identification (AVI) Toolkit

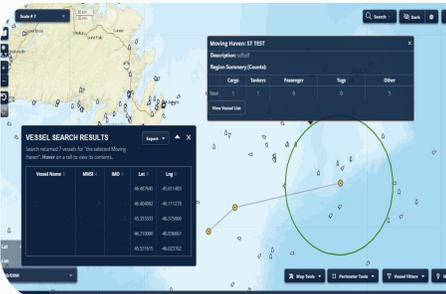


- Enables detection of vessels that have misrepresented their identities, locations or intentions to ascertain associated risks and illegal activities
- Tools for integrity analysis of selected group of vessels to determine patterns of behaviour and movement, utilizing live data and trained machine learning models
- Intuitive user interface facilitates detailed analyses and verification of vessel identity, specifications status, and trajectory, all within a single interactive platform
- Dashboard designed to revolutionize maritime risk management through the integration of AVI technology which provides users with real-time access to AVI predictions for 60K+ vessels



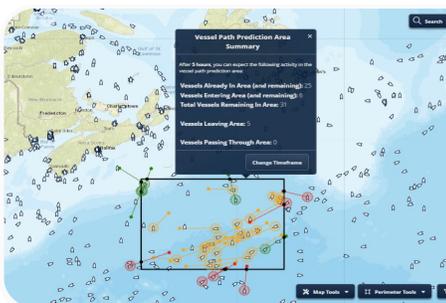
Intelligent Geofencing

- Geofences enhanced with machine learning to deliver a high accuracy timeline and enhanced predictability
- Provides real-time alerts and notifications (on entry, on leave, on cross, on speed, on dark)
- Enables monitoring of selected zones, vessels, protected zones, and high-value undersea assets



Vessel Moving Haven

- Perimeter tool that allows a user to monitor a region in a similar manner as a geofence
- Moving haven perimeter can be along a path that either follows a vessel or pre-determined by set way points
- Designed to allow movement along a path for a vessel that may not be currently sending AIS messages, or not at the frequency desired for updated movements (moving haven path need not be related in any way to a vessel's actual movement)
- Enables alerts for vessels based on speed, if a vessel goes dark, and perimeter entry and exit



Vessel Path Prediction

- Anticipates vessel location 10 days in advance which facilitates different applications such as planned interdictions of vessels conducting illegal activities as well as planned training exercises
- Facilitates resource estimation and traffic management at ports
- Enables continuous vessel monitoring and commercial and security risk analysis

Port	Country	Lat	Lon	Entry Date	Exit Date	Time in Port (Days)
SOUTHAMPTON	GB	50.900000	-1.000000	Apr 12, 2024 06:54:00 Z	Apr 18, 2024 21:24:10 Z	1.6
BRISBANE	AU	-30.333333	150.000000	Apr 15, 2024 23:54:00 Z	Apr 16, 2024 00:00:00 Z	0.6
KELSOE	US	30.900000	-75.333333	Apr 15, 2024 06:14:00 Z	Apr 15, 2024 04:41:00 Z	1.0
CHARLESTON	US	32.783333	-79.916667	Mar 26, 2024 11:41:00 Z	Mar 30, 2024 00:19:00 Z	0.7
BIRMINGHAM	US	31.150000	-81.000000	Mar 26, 2024 08:14:00 Z	Mar 28, 2024 23:36:00 Z	0.6
SAN JUAN	PR	18.466667	-66.116667	Mar 24, 2024 12:42:00 Z	Mar 25, 2024 03:17:00 Z	0.6
PUEERTO CRESTADA	PR	0.300000	-79.016667	Mar 21, 2024 13:07:00 Z	Mar 21, 2024 10:17:00 Z	0.2
BALEIA	PR	0.900000	-79.066667	Mar 21, 2024 06:20:00 Z	Mar 21, 2024 10:28:00 Z	0.2
USAN	KR	35.450000	129.400000	Feb 25, 2024 21:00:00 Z	Feb 27, 2024 12:54:00 Z	1.6
MUNDO	KR	34.783333	126.383333	Feb 25, 2024 23:54:00 Z	Feb 25, 2024 03:36:00 Z	1.2
PUEERTO SAN ANTONIO	CL	33.583333	-71.616667	Jan 30, 2024 12:00:00 Z	Jan 31, 2024 06:07:00 Z	0.7
BARCELONA	ES	41.900000	2.116667	Jan 21, 2024 10:14:00 Z	Jan 21, 2024 10:17:00 Z	0.8
BARCELONA	ES	41.900000	-1.883333	Jan 19, 2024 00:13:00 Z	Jan 19, 2024 27:00:00 Z	0.1

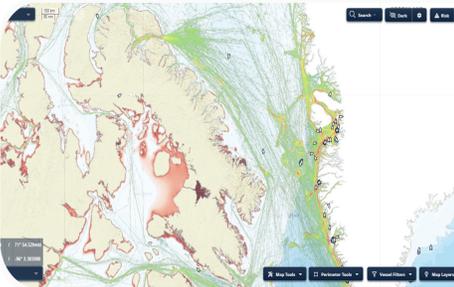
Historic Reporting and Analysis

- Ability to analyze past traffic in selected areas for future planning
- Facilitate investigation of vessel movements towards environmental or other legal compliance



Pattern of Life Analysis

- Persistent global threat and risk assessment based on dynamic real time vessel behavior analysis
- Determines security risks based on intelligence gathered from multiple sensor systems
- Facilitates predictive and real time analysis, providing insights prior to potential issues
- Availability of Port Inspection data for integration into existing UI



Arctic Surveillance

- Provides persistent monitoring of large geographical regions to maintain visibility and respond in a timely manner to assert national sovereignty

Inter-agency Communication and Collaboration

- Provides a common operating picture for all relevant organisations to have the same information, thus enabling collaborative planning and sharing of events to coordinate responses
- Advanced chat features and ability to share incident files to facilitate inter-departmental communication

STAY AHEAD OF POTENTIAL THREATS WITH
CUSTOMIZED ALERTS AND MORE WITH OCIANA®

Contact us at: sales@gsts.ca