



RHEINMETALL POLARIS FUSION

RAPID RECONNAISSANCE THROUGH AUTOMATIC DATA CORRELATION

Maritime security organisations face a variety of challenges arising from the growing complexity of global security situations. It involves tracking and analysing activities at sea to identify risks, protect shipping lanes and critical infrastructure, and prevent illegal actions like piracy, smuggling, and unauthorized fishing.

In order to meet these challenges, maritime reconnaissance is essential for further decision-making. It can effectively support the creation of a situation-specific picture if a large amount of mass data from different sources must be processed and evaluated quickly and efficiently.

A key aspect of modern maritime reconnaissance is the monitoring of satellite communications. Vessels use satellite systems to navigate and communicate, but these systems can also reveal valuable information about their routes, destinations, and activities. By analysing satellite data, authorities can detect anomalies, such as vessels turning off their transponders to hide illegal activities. This insight helps to locate vessels involved in crimes like human trafficking, the transport of smuggled goods or illegal ship-to-ship transfers.

SOLUTION

Rheinmetall provides an own developed solution that aims to overcome these challenges. It automatically correlates large volumes of data from various sources, such as satellite communication and AIS data, within a very short space of time. This significantly reduces the analyst's workload during data analysis and enables them to provide important information as quickly as possible for the further decision-making process, which can provide a decisive advantage.

PRODUCT OVERVIEW

Rheinmetall POLARIS FUSION is a data processing system for maritime reconnaissance that processes data from various sources such as satellite communication, AIS and ADS-B. It automatically correlates the data, creates a complete and precise picture of the environment, and visualizes it on interactive maps. POLARIS FUSION detects and tracks maritime objects of interest in almost real time to identify potential threats. This makes it possible, for example, to search specifically for ships that are currently subject to sanctions and to analyse intercepted communication. Another use case is tracking of ships with a deactivated AIS transponder.



Automatic mass data correlation



Visualization of vessel's movement on interactive maps



Automatic identification of communication devices used on board



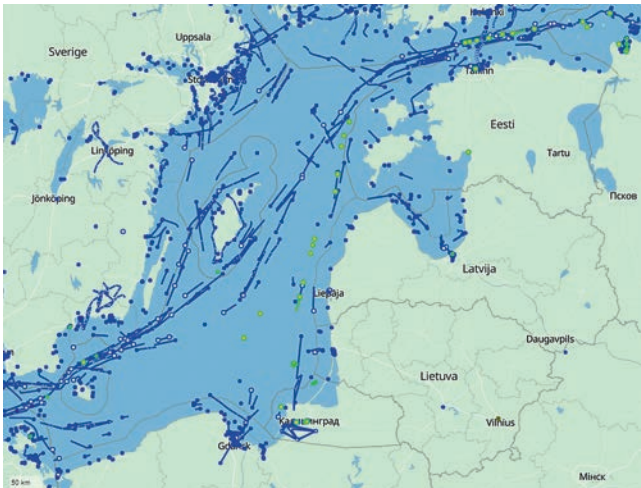
Dark Vessel Tracking



User driven creation of correlation groups



API Interface to import third-party data



WHAT DO WE DO?

Trusted advisor

Rheinmetall sees itself as a trusted advisor for all customers and supports the selection of the necessary infrastructure and systems based on customer requirements.

System demonstration

In order to prove the performance and reliability of POLARIS FUSION, Rheinmetall will be demonstrating the system on demand.

Integration support

Rheinmetall supports the integration of third-party and customer-own data, if required.

Training

Rheinmetall enables users to use the system effectively and efficiently.

Customer service

Rheinmetall offers fast help with technical problems and regular maintenance.

Development

Rheinmetall is constantly investing in its products and processes in order to keep pace with technological advances and new threats.

WHAT WILL YOU GET?

Turnkey solution

Rheinmetall supplies a complete, turnkey solution that includes all necessary hardware and software components. This includes servers and workstations.

Automatic data correlation solution

The system supports automatic data correlation through the integration of strategic satellite communication data and additional data sources.

Transponder subscription and integration

Existing AIS and ADS-B data can be integrated into the system. If required, the transponder data can be acquired via Rheinmetall.

Acquisition and integration of satcom data

Rheinmetall offers a variety of solutions for cross-border satcom reconnaissance. These are used to obtain data from commercial satcom systems such as Inmarsat, Thuraya, Iridium and VSAT.

API interface

The API allows users to easily integrate satcom data and other external data sources into POLARIS FUSION.

Multiple installation options

Depending on customer requirements, the system can be installed on different hardware, e.g. notebook, workstation or server.

