

# SEAKER™

Maritime Domain Awareness



## Maintain Visibility of the Oceans

The ocean is vast and challenging to monitor. Exclusive Economic Zones (EEZ) alone total almost 53 million square miles of open water. Since governments lack visibility, people exploit the situation by engaging in illicit activities, such as smuggling, piracy, illegal fishing, and human trafficking.

HawkEye 360 introduces the SEAKER suite of products to radically change this dynamic. SEAKER equips governments to identify and track vessels engaged in suspicious or threatening behavior. Countries can use this powerful knowledge to support vessel interdiction, criminal prosecution, and environmental protection.

HawkEye 360's satellites geolocate a diverse set of Radio Frequency (RF) signals emitted by ships, such as X-band radars and VHF radios. This unique dataset enables SEAKER to track vessels even when they attempt to hide by deactivating or spoofing their Automatic Identification System (AIS) transceiver. SEAKER fuses this data with other sources to form a behavioral assessment.

SEAKER's proprietary algorithms deliver sophisticated and meaningful analytics that solve challenges faced by navies and coast guards around the world. Only SEAKER offers a trusted way to independently validate vessel positions without relying on their cooperation.

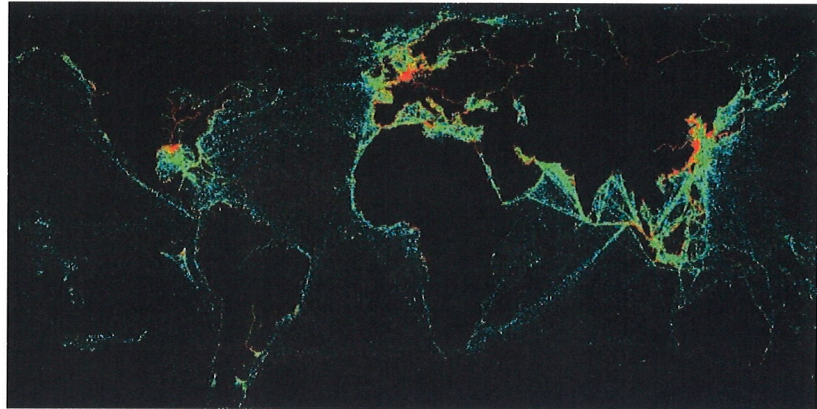
## Key Features and Benefits

- » Geolocate vessels based on a diverse set of RF signals
- » Independently track non-cooperative vessels
- » Automate monitoring for a maritime region of interest
- » Detect dark ships and vessel rendezvous
- » Gain historic and near time visibility of ship activity
- » Receive risk scoring and alerts for vessels of interest
- » Gain behavioral insights that forecast future activity





Each point represents a vessel "disappearing" off the AIS data map for 8+ hours; almost one million lost tracking periods across a month. SEAKER reaches beyond AIS to fill these gaps and form a richer understanding of vessel activity.



## Product Suite Summary

### SEAKER

SEAKER is the foundational product. It automates Maritime Domain Awareness, offering a service that enables users to conduct monitoring of vessel activity within an area of interest.

Rather than delivering a generic set of data, SEAKER prioritizes information about vessels engaged in suspicious behavior. Users have the option to specify a vessel watch list for dedicated tracking.

SEAKER algorithms sort through HawkEye 360's geolocations of RF signals, third-party AIS data, and maritime databases to produce:

**Dark Ship Detection** – Identifies ships that may not be broadcasting AIS.

**Rendezvous Detection** – Identifies ships that are co-traveling in open waters.

**Vessel Risk Assessment** – Scores vessels based on geolocation and patterns of behavior and reputation.

Users place orders through an Application Programming Interface (API) for integration with their current systems. SEAKER returns GeoJSON data files containing the tracks for the identified ships, making it easy for users to visualize and process in GIS software.

### SEAKER Premium

The Premium version of SEAKER incorporates predictive analytics that indicate possible future rendezvous and generates alerts for officials to preemptively task other collection sources.

### SEAKER Track

Follow the activities of a particular ship long-term, anywhere globally. Supply a MMSI and the date range to maintain tracking and the system will continually search for any RF signal geolocations and AIS records connected with that vessel.

### SEAKER Profile

Select a particular vessel for HawkEye 360 to develop an RF profile, assembling an ongoing record of RF signatures generated by that vessel over a specified time period to support future investigative activities.

### SEAKER Lookup

Submit a query to pull-up last known details about a vessel. Information returned includes general vessel description, most recent location, port calls, HawkEye 360 vessel risk score, and RF profile (if available).