



REAL-TIME SEARCH AND RESCUE

EXACTVIEW™ REAL-TIME SATELLITE AUTOMATIC IDENTIFICATION SYSTEM POWERED BY HARRIS

BENEFITS

Tracks up-to-the-minute location of vessels and is able to confirm exact location of any positions

Significantly reduces response times by knowing exactly when and where a vessel is in trouble

Monitors rescue crews during SAR operations to identify issues before they worsen

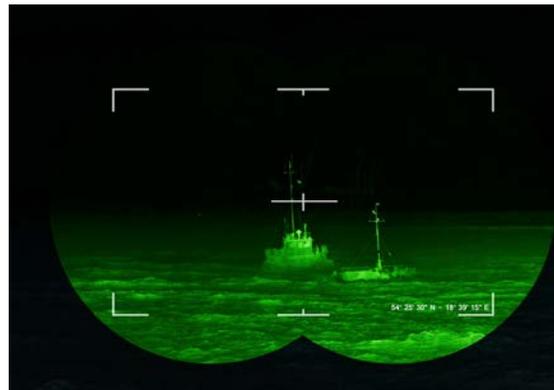
BUSINESS PROBLEM

Vessels often do not declare they are in trouble until it is too late, resulting in distress signals being sent at the very last moment, or sometimes not at all. There are three stages to alerting authorities to problems at sea, however in many cases, a vessel will flounder without sending any indication of trouble or low-level distress calls. The highest stage and final level signal used is the Mayday, but even when a distress call is made, a lack of communication and vessel data greatly compromises the ability of search and rescue (SAR) operations.

The International Cospas-Sarsat Program is a satellite-based search and rescue distress alert detection and information distribution system. It is an intrinsic part of the Global Maritime Distress and Safety System (GMDSS). Unfortunately, there is ambiguity within the system that sometimes causes two possible locations of a distress. If one reported position is on land then that signal is discounted; if both positions are at sea, then it is possible for SAR operations to be directed to the wrong area.

BACKGROUND

To be effective, a Rescue Coordination Center (RCC) needs up-to-date, situational awareness of all vessels and their status within the vicinity of a distress position. The RCC uses this data to select the most appropriate vessels to proceed to the distress call, plus other vessels to keep on station for backup. The RCC takes into account not just the range and speed of a vessel, but also its freeboard, cargo, and onboard assets such as helicopters and medical facilities.



THE GAME CHANGER

THE EXACTVIEW™ RT POWERED BY HARRIS ADVANTAGE

exactView™ RT powered by Harris is a satellite automatic identification system (S-AIS) with real-time (RT) global coverage. It can reduce the ambiguity of SAR incidents by geolocation amongst multiple satellites. It can also correlate its data with other sources such as GMDSS and radar to confirm the position of a ship. The system provides authorities and mariners accurate, up-to-date status information on a vessel in distress as well as its proximity to other nearby vessels. This allows authorities to be proactive during an incident and focus SAR operations more effectively. Vessel updates are reduced to minutes where time is of the essence in distress situations.

S-AIS data can also be used to predict if a ship is in distress prior to receiving notice. For example, if a vessel's course over ground (COG) and heading in the S-AIS data differ by more than 60 degrees, it can indicate the vessel is sideways. If the vessel is a tanker that is moving less than 2 knots, it may have lost an engine and could be seriously damaged if hit by a big wave. By predicting potential problems such as these, authorities can take the initiative to contact the vessel to determine status before it becomes too late. The exactView™ RT powered by Harris technology will radically enhance maritime domain awareness for improved SAR operations .

Constellation of at least 58 AIS satellites in 6 orbital planes

- Offers constant, overlapping coverage
- High geolocation accuracy
- Tracks up-to-the-minute location of vessels and is able to confirm exact location of any positions

Persistent coverage Data latency to ground ≤ 70 ms

- Significantly reduces response times by knowing exactly when and where a vessel is in trouble so authorities can notify the closest appropriate vessel for assistance
- Monitors rescue crews during SAR operations to identify issues before they worsen
- Enables optimal utilization of limited assets for rescue (ships, planes, etc.)

High-density, current and historic tracking data

- Monitors routes since many vessels may not comply with rules and regulations, risking the safety of vessel and crew
- Data can be used to assess probable risk to ships, allowing for proper escalation procedures and ensuring an appropriate state of readiness to reduce response time
- Provides historic tracks of the stricken vessel and nearby traffic, which may be used to identify other vessels which failed in their duty to report an incident or that may have been involved in the incident
- Tracking data overlaid with weather, sea states, ocean currents and other data affords a complete picture of SAR operations and prediction assessments

exactView™ RT Powered by Harris provides true, global, real-time maritime domain awareness that is especially useful in high-piracy risk areas. This technology provides unprecedented benefits that can help security organizations proactively counter piracy.

CONTACT US

EMAIL: exactAIS@harris.com

PHONE: (US) 1-888-206-9919
(Canada) 1-519-622 4445



About Harris Corporation

Harris Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world. [Learn more at harris.com](http://harris.com).

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