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SEAS OF SOLUTIONS BRAND

Why commercial ships should deploy an AIS SART

Precision life craft location plus lower cost of ownership with McMurdo SmartFind S5A AIS SART

There is no question that AIS has become an integral tool for many marine operators as it is extensively used for collision avoidance, security, traffic management, pilotage, ship to ship identification and search & rescue. One of the most successful offerings in McMurdo's growing AIS product portfolio has been the SmartFind S5A AIS SART (Search & Rescue Transmitter), that offers functionality and cost benefits that mean they are fast becoming the SART of choice.

AIS SART

McMurdo's SmartFind S5A AIS SART, is a self-contained radio device used to locate a survival craft or distressed vessel by sending updated position reports using a standard Automatic Identification System (AIS) class-A position report. Primarily intended for use in a life raft or survival craft an AIS SART can be deployed on board or in the water. GMDSS vessels from 300 to 500 GRT are required to carry one SART, and vessels over 500 GRT are required to carry two and since 2010, AIS SARTs have been a permissible alternative to radar SARTs under SOLAS regulations.

Cost of Ownership

McMurdo's SmartFind S5A AIS SART is considered a more cost effective GMDSS SART solution than radar SARTs. This is primarily due to lower retail cost, combined with functionality that includes a longer battery life of six years, which reduces serving cost.

Signal Clarity

The AIS SART position message is sent repeating 8 times once every minute. This amount of inbuilt redundancy means the SART alert message has a very high probability of local detection. It is only needed to capture just 1 of the 8 repeating burst transmissions to fully resolve the unit ID and latest position update on to the recovery vessels' AIS plotter screen.

Priority Signal

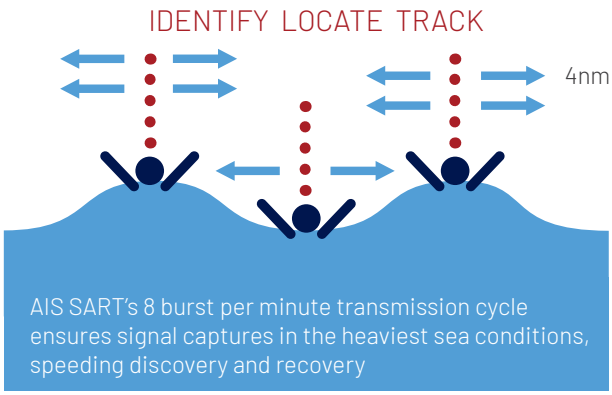
As AIS MOB transmission from your SmartFind has a priority over regular AIS traffic due to an 'impolite AIS protocol', which means AIS transponders in the same area will pause transmitting when they first hear the AIS MOB from your SmartFind S5A AIS SART and then reschedule transmission. This ensures that the AIS MOB can be heard even in a crowded seaway.

Position Clarity

Once activated the position of a SmartFind S5A AIS SART will be displayed as a GPS located target icon on ships in the vicinity with AIS enabled plotter screens. They do this by repeatedly transmitting an AIS message type 1 (class A position report) and 14 (safety broadcast message) alternating quickly between both AIS channels AIS1 and AIS2. The vessel will get a range and bearing to the exact location of the Life Craft which is updated, in real time, to track and recover the crew.

Information Clarity

In a marine rescue situation, time in the water is a key factor in crew survival, so timely and accurate location information is key to search and rescue providers. A radar SART's signal is reliant on the reception and interpretation of X band radar, which can at times be dificult as it can be affected by a number of factors collectively referred to as Rain Fade but that can including sea clutter, weather and terrain, which can reduce the Radar range and delay the identification of a radar SART location signal. The clear identification and extensive location information returned from an AIS SART, combined with its VHF transmissions that can propagate around obstacles such as land mass, enables rescue vessels and aircraft fitted with AIS receivers to provide the quickest on scene assistance.



AIS SART's 8 burst per minute transmission cycle ensures signal captures in the heaviest sea conditions, speeding discovery and recovery

AIS Growth

Although SARTs are only required to be fitted by GMDSS mandated vessels, low cost AIS receivers such as McMurdo's SmartFind M15S, mean many leisure users are also now benefiting from location, tracking and localized recovery capabilities associated with the AIS system. The recent United States Coast Guard AIS Mandate launched in April 2015; has also greatly extended the number of ships required to carry either Class A or B AIS equipment. As a result the number of vessels able to receive AIS signals and offer assistance in a distress situation has greatly increased.

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