

Sales Introduction

SAILOR 5052 AIS SART

COBHAM

Every Mission Matters



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1 SAILOR 5052 AIS SART

1.1 Introduction

One of the most successful new offerings in Cobham SATCOM's safety product portfolio has been the Introduction of AIS SART (SART = Search & Rescue Transponder). AIS SART is fast becoming the SART of choice in the merchant marine.

The SAILOR 5052 AIS SART is a manual deployment survivor location device intended for use on life-rafts or survival crafts. It meets IMO SOLAS requirements and is the next generation alternative to the well known SAILOR SART II radar SART.

SAILOR 5052 AIS SART is a self-contained radio device used to locate a survival craft or vessel in distress by sending updated position reports using the standard Automatic Identification System (AIS) class-A position report.

The SAILOR 5052 AIS SART is compact and easy to operate and deploy. It is packed in a highly visible yellow carry case which can be wall mounted on board or stored inside a survival craft. This ensures the optimal availability in an emergency situation.

There is no question that AIS has become an integral tool for marine operators as it is extensively used for collision avoidance, security, traffic management, pilotage, ship to ship identification and search & rescue. This makes the use of AIS SART a precise and effective location device in a Search and Rescue operation.

The SAILOR 5052 AIS SART is intended for use in a life raft or survival craft. It can be deployed on board or in the water. SOLAS GMDSS vessels from 300 GRT are required to carry one SART, and vessels over 500 GRT are required to carry two. Since 2010, AIS SARTs have been a permissible IMO alternative to radar SARTs under the SOLAS regulations.

The SAILOR 5052 AIS SART transmits target survivor information including structured alert messages, GPS position information and a unique serial identity number. Once activated, the SAILOR 5052 AIS SART transmits continually for minimum 96 hours. A built in GPS provides accurate position information to assist a quick recovery of survivors.

The SAILOR 5052 AIS SART include:

- Internationally approved according to IMO SOLAS regulations
- Waterproof to 10 meters
- The device Floats
- Compact and lightweight
- Non-hazardous battery for safe transportation

1.2 Cost of Ownership

SAILOR 5052 AIS SART is considered a more cost effective GMDSS SART solution than radar SARTs primarily due to lower retail cost combined with functionality that includes a longer battery life of six years.

1.3 Signal Clarity

The AIS SART position message is sent continuously 8 times a minute. This amount of built in redundancy means the SART alert message has a very high probability of local detection. It only need 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.

1.4 Priority Signal

As AIS MOB (Man over Board) transmission like the SAILOR 5052 AIS SART 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 signal from your SAILOR 5052 AIS SART and then reschedule transmission. This ensures that the AIS MOB can be heard even in a crowded seaway.

1.5 Position Clarity

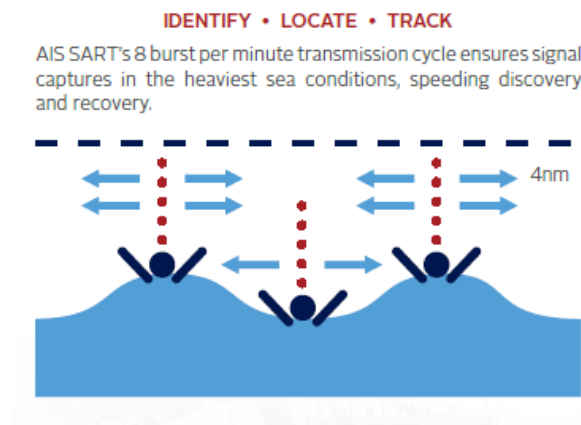
Once activated the position of a SAILOR 5052 AIS SART will be displayed as a GPS located target icon on ships in the vicinity with AIS enabled plotter screens (e.g. the SAILOR 6280 AIS System). They do this by repeatedly transmitting an AIS message type 1 (class A position report) and 14 (safety broadcast 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.



1.6 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 difficult. The signal can be affected by a number of factors collectively referred to as Rain Fade but also include 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.



1.7 AIS Growth

Although SARTs are only required to be fitted on GMDSS mandated vessels, AIS receivers can today be found on many leisure boats whom 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.

2 6 good reasons to switch your Radar SART to a SAILOR 5052 AIS SART

- 1) More accurate position detection – GPS specific
- 2) Wider signal range
- 3) Avoids 'rain fade effect' seen in Radar SART
- 4) Provides GPS coordinates of survival craft
- 5) Longer battery life
- 6) Lower cost of ownership



3 Practical information

The SAILOR 5052 AIS will be sold under the following terms:

Product name	Part number	MSRP (USD)
SAILOR 5052 AIS SART	405052A-00500	625,00

The SAILOR 5052 AIS SART comes with:

- SAILOR 5052 AIS SART unit
- Extender
- Yellow Robust Stowing Case (Incl 10m integral Lanyard)

4 Exhibit 1: How to use:

SOS ONLY IN EMERGENCY	
During evacuation Take the AIS SART to help craft localisation during search and rescue operation.	
1 - Pull and break the red protection cover 2 - Press & hold ON for 2 seconds: LED flashes orange during GPS fix then green	
3 - Connect and rotate extension pole into AIS SART 4 - Remove bottom cover and extend pole.	
5 - Install pole upright outside the craft or, Use lanyard to tighten AIS SART to craft.	

5 Exhibit 2: Technical specification

8 TECHNICAL SPECIFICATION

VHF transmitter	Operating Frequencies	AIS1, 161.975 MHz AIS2, 162.025 MHz
	Data Rate	9,600 bps
	Bandwidth	25 kHz
	Power output	1 W EIRP
	AIS Message Type	Message 1, Message 14
	Modulation	GMSK
	Antenna	Integrated by PCB
GPS receiver	Satellites tracked	48 channels
	Acquisition Sensitivity	-159 dBm
	Tracking Sensitivity	-159 dBm
	Position Accuracy	< 2.5 m Autonomous & SBAS
Battery	Type	Primary Lithium (not rechargeable)
	Operating life	48 hours minimum
	Storage	6 years
	Service	Replacement by authorized agent
Environment	Operating temperature	-20 °C to +55 °C (-4° F to +131° F)
	Storage temperature	-30 °C to +70 °C (-22° F to +158° F)
	Waterproof	Immersion to 10 m
	Buoyancy	Floats
	Exterior Finish	Highly Visible Yellow
	Compass Safe Distance	Standard Magnetic – 0.60 m Steering Magnetic – 0.40 m
Dimensions (AIS SART)	Weight	283 g (Battery included)
	Max Diameter	70 mm
	Length	300 mm
Dimensions (Pole)	Weight	300 g
	Length	1050 mm extended
Dimensions (Storage Package)	Weight	1080 g
Carry & Mounting	Means of carrying	Carry Bag
	Means of mounting	Wall Mount bracket
Standards	International standards	IEC 61097-14 Ed.1 (2010) IEC 60945 Ed. 4 (2002) incl. Corrigendum 1 (2008)
	ITU regulations	ITU-R M.1371-5 (2014)
	IMO resolutions	IMO Resolution MSC.246 (83)

6 Exhibit 3: Dimensions

