



Distress Signals

A guide to distress signals and how they work

Introduction

This presentation takes you through the main types of distress signal and how they work



Distress Signals

In addition to distress flares, there are a number of other traditionally recognised distress signals



Distress Signals

Raising and lowering arms



Distress Signals

Continuous sounding of the fog horn



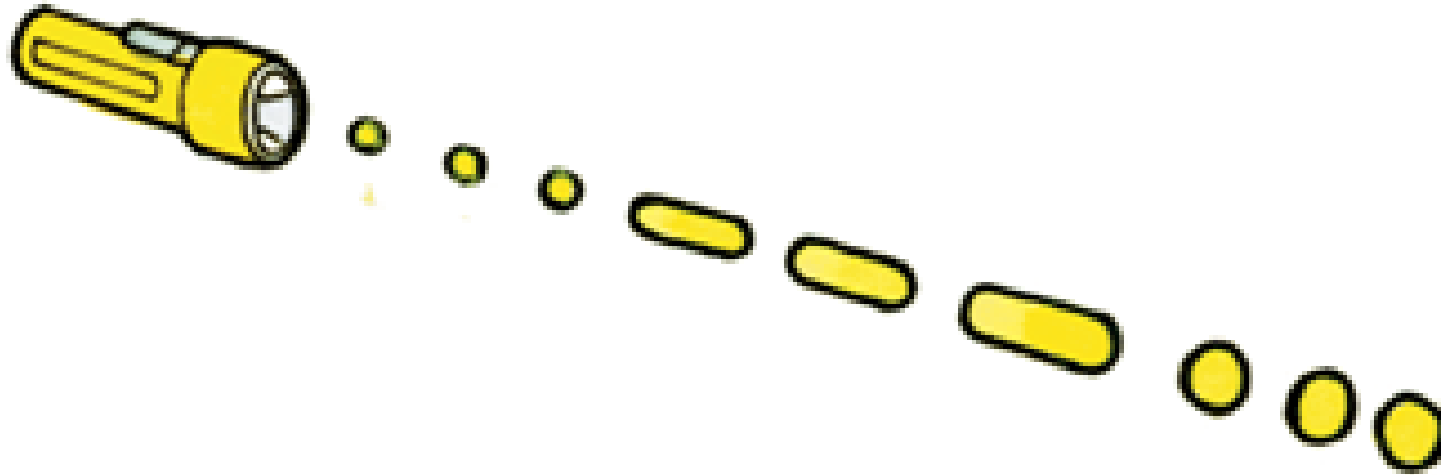
Distress Signals

Flying a ball under or over a square



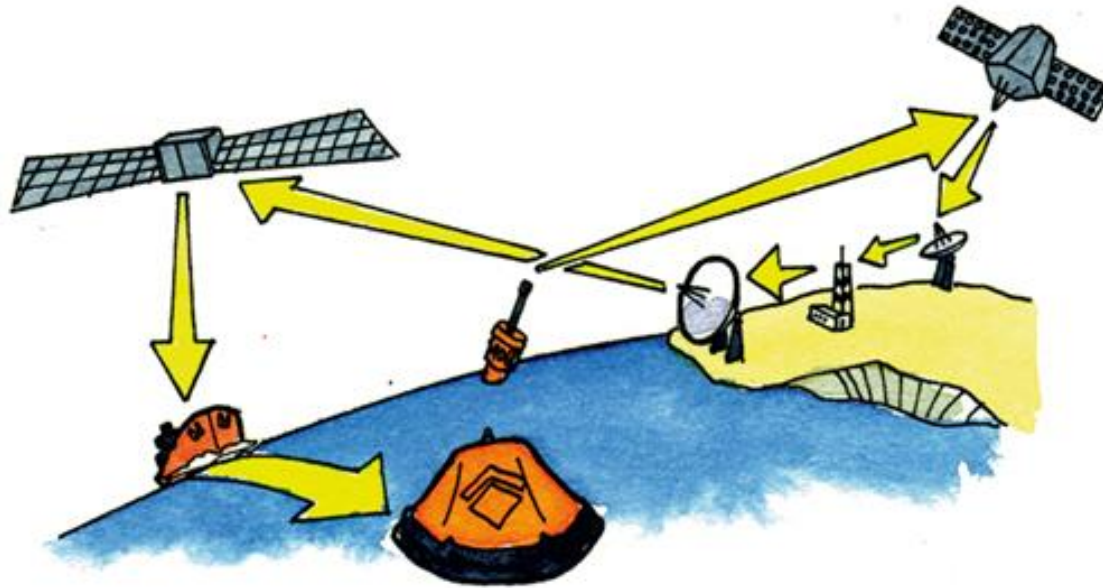
Distress Signals

SOS by any means



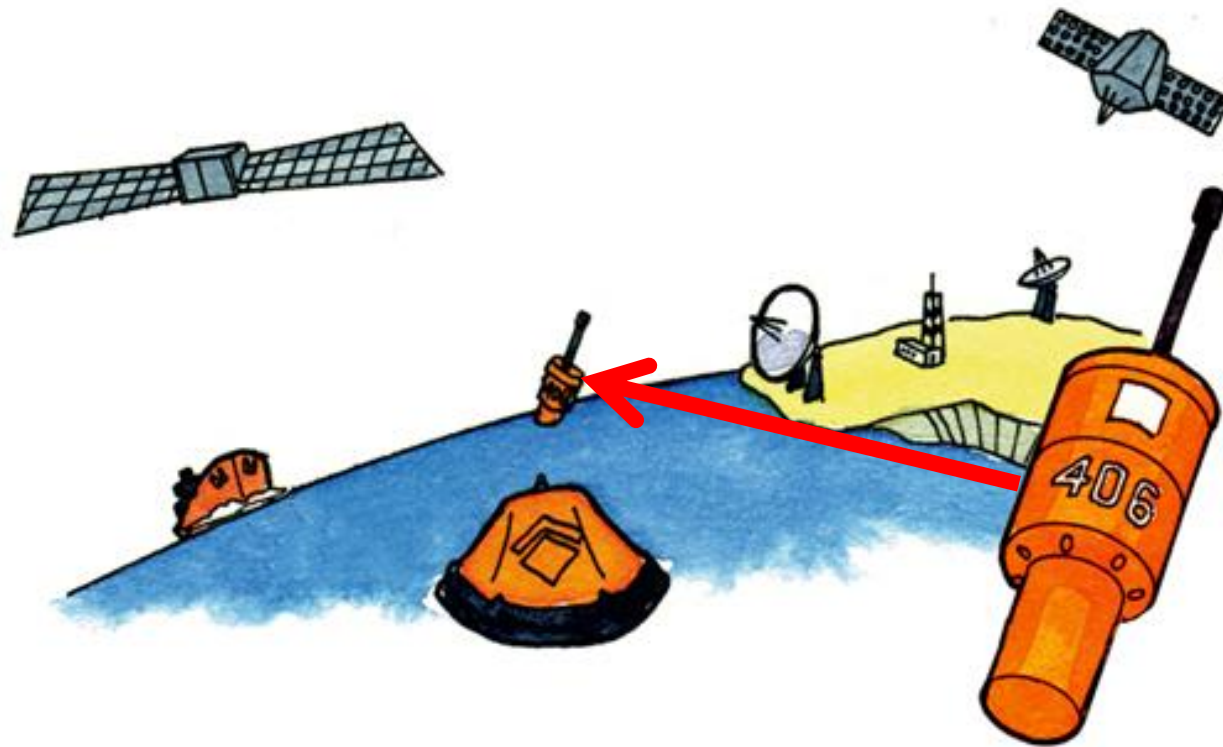
Electronic Distress Signals

Today, most offshore skippers consider modern electronic systems to be their first choice for signalling distress



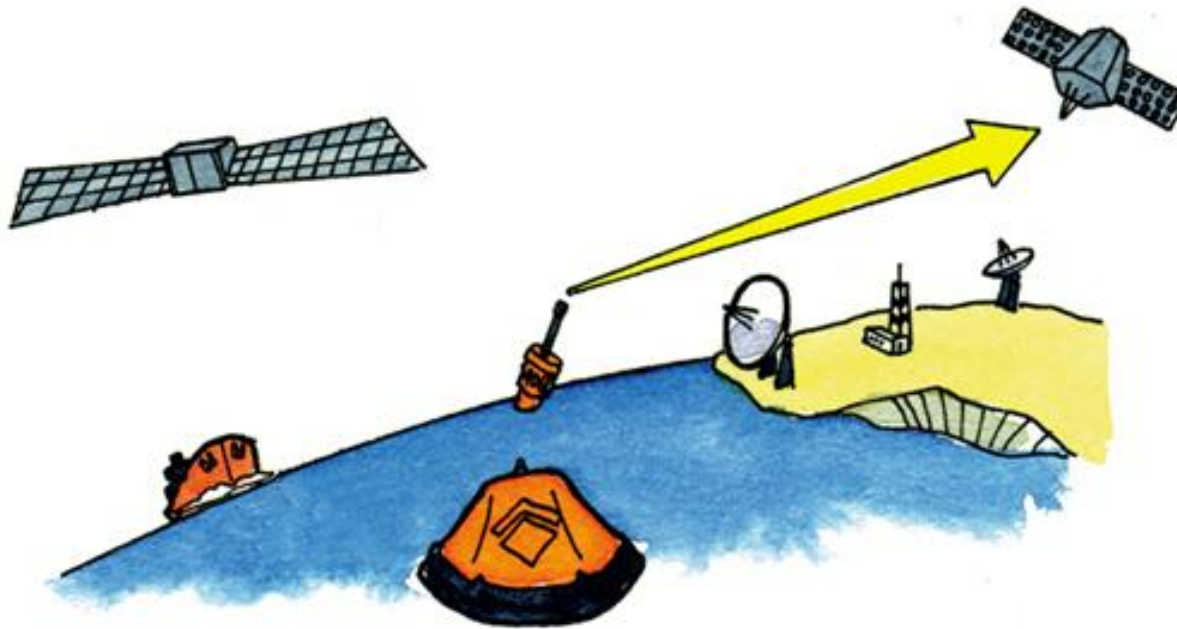
EPIRB

Emergency Position Indicating Radio Beacon



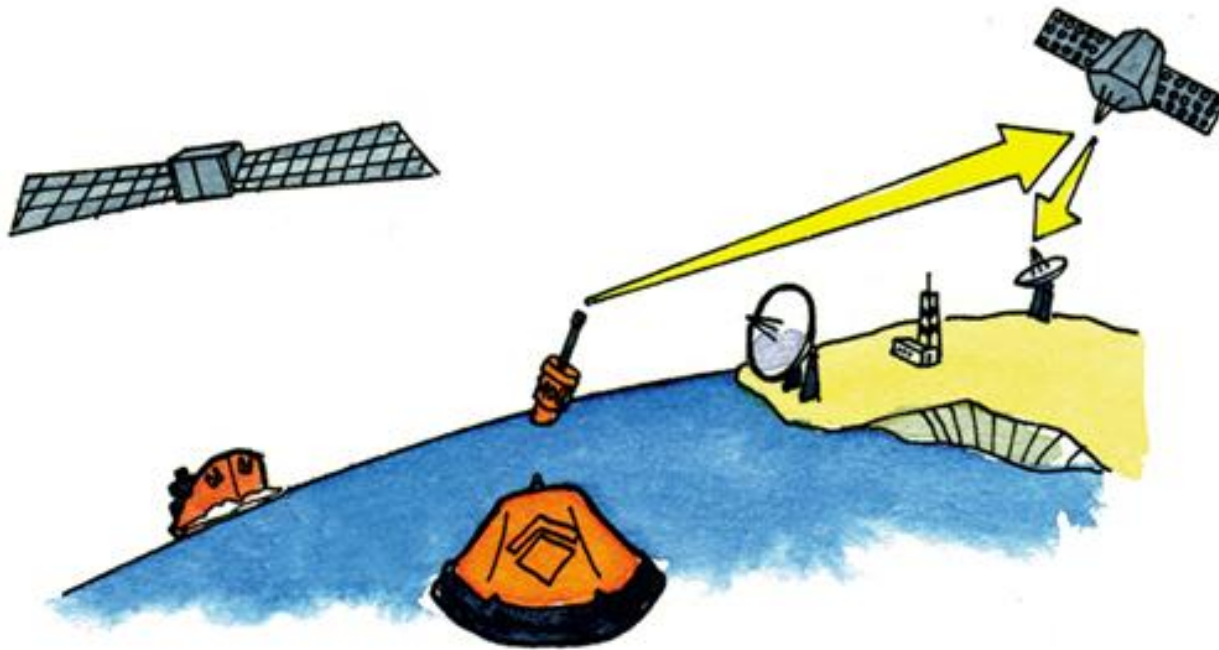
EPIRB

When activated an **EPIRB** sends a distress signal to the rescue services via a satellite system



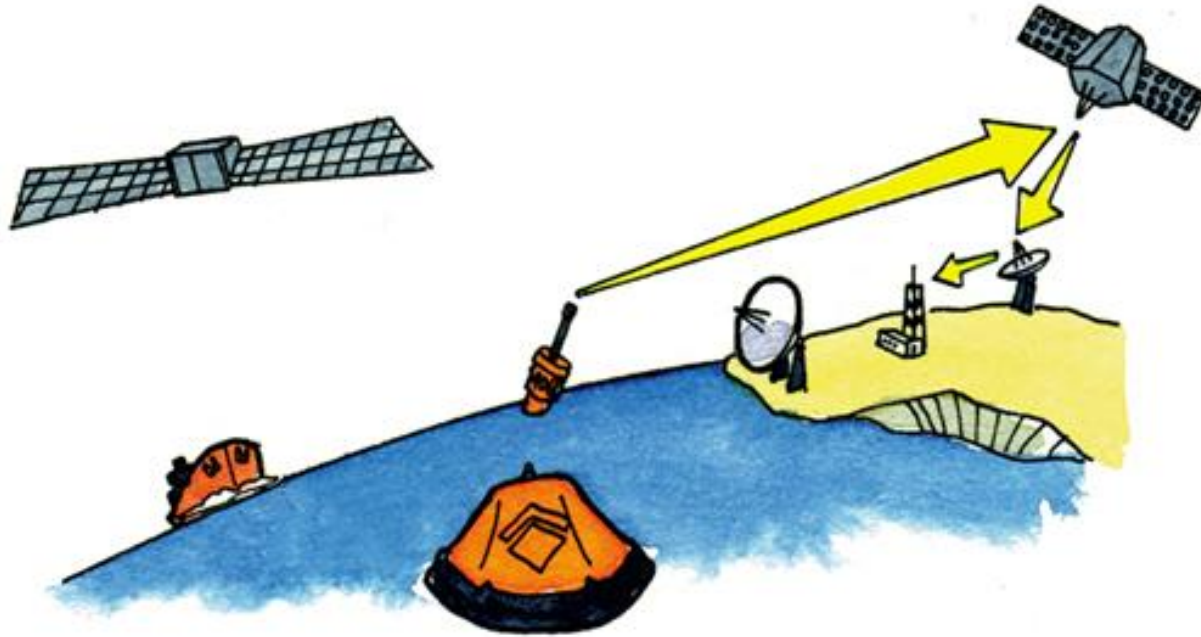
EPIRB

The satellite relays the distress signal to an earth station



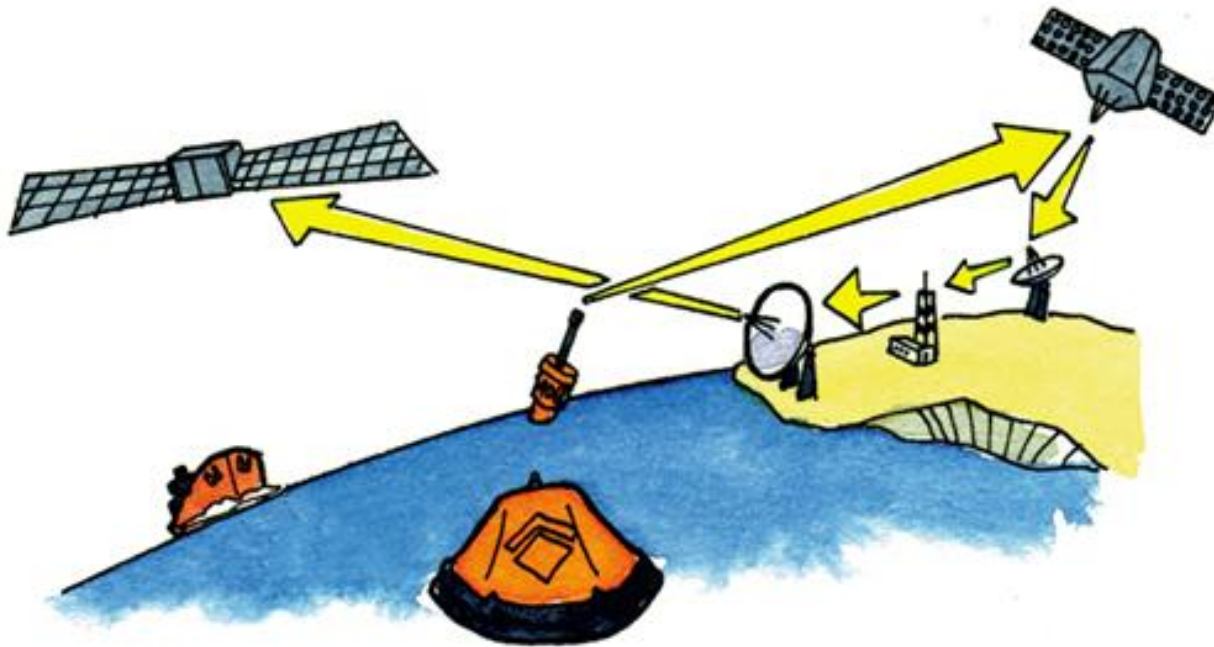
EPIRB

The earth station sends the distress signal to a coastguard



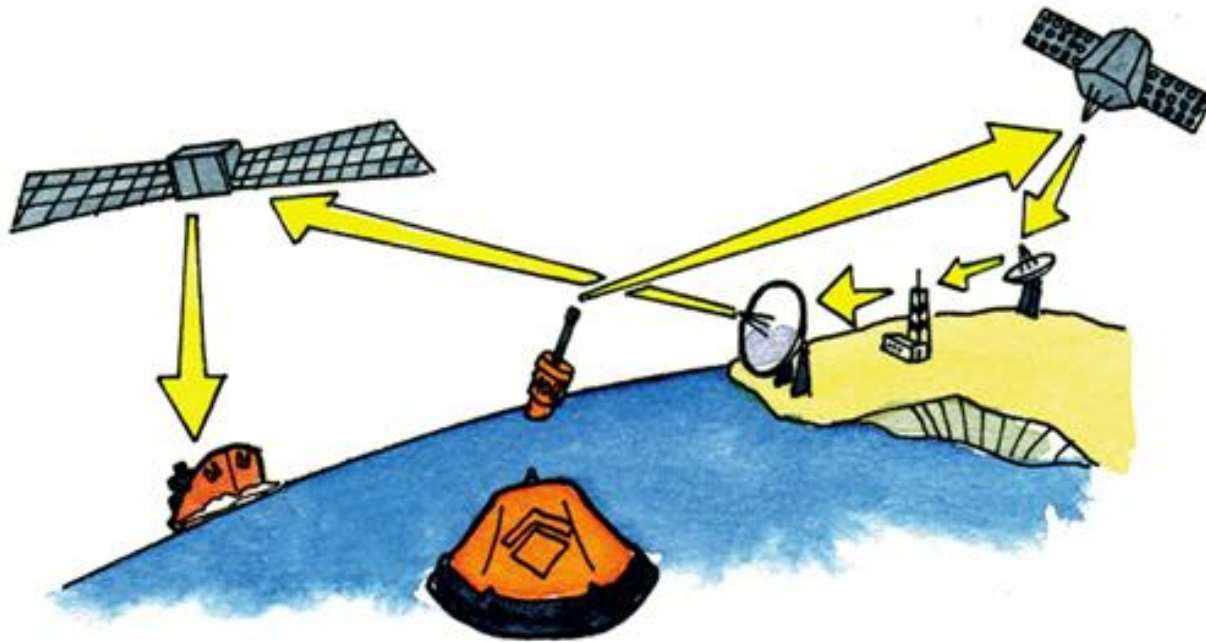
EPIRB

The coastguard broadcasts the distress by various means including satellite



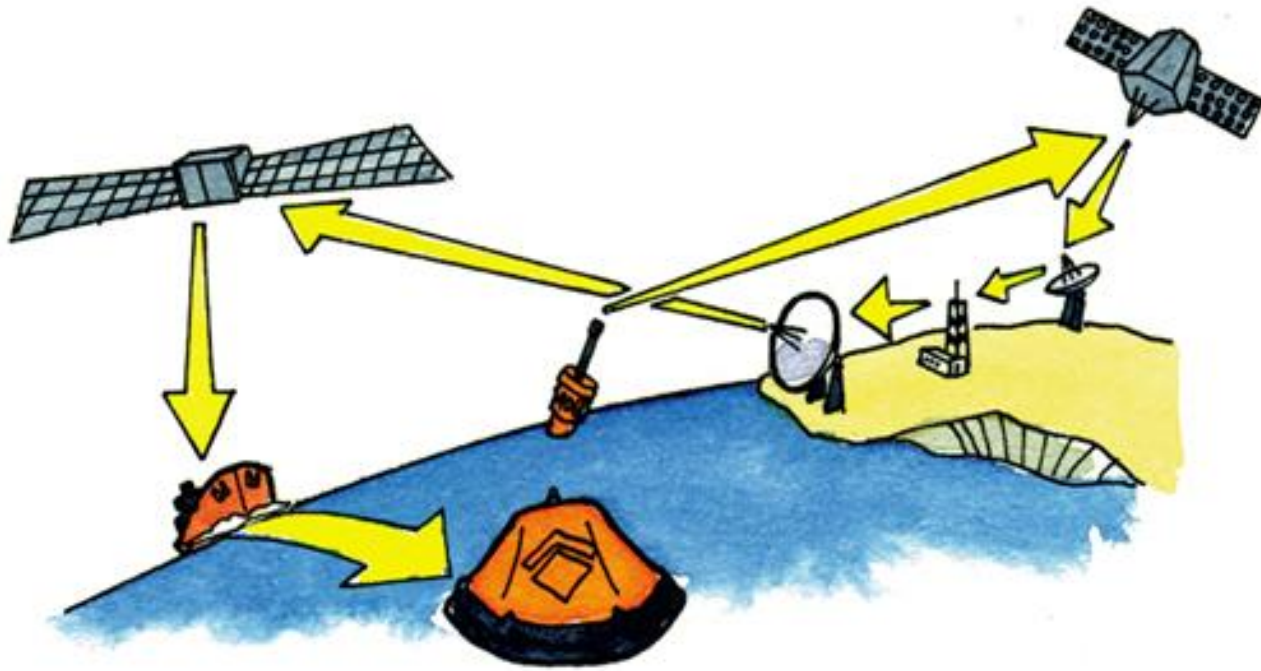
EPIRB

A suitable vessel is contacted



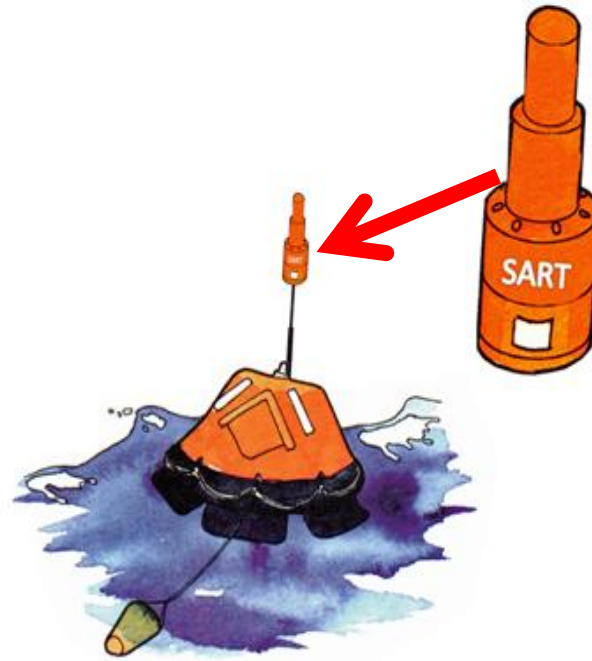
EPIRB

The vessel is sent to the area to effect a rescue



SART

Search and Rescue Radar Transponder



SART

When a vessel's radar sweeps the SART



SART

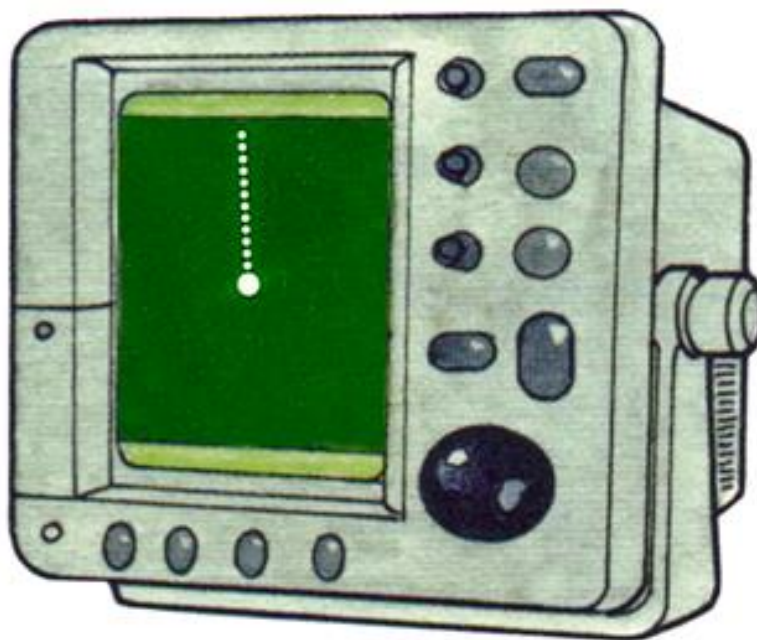
It receives the SART's distress signal



Enabling the rescue vessel to home in to the SART's position

SART

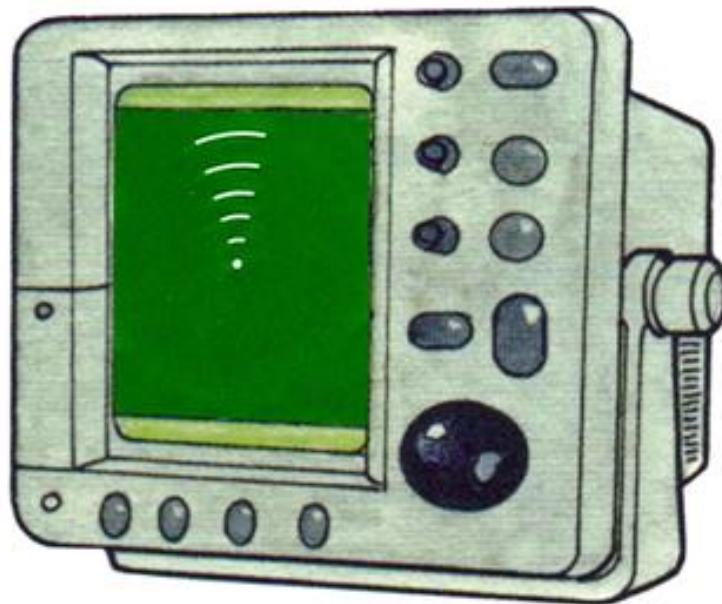
SART on radar screen



The signal from a SART initially displays as a row of twelve dots

SART

SART on radar screen



As the rescue vessel get closer to the SART the dots become arcs

SART

SART on radar screen



By the time the rescue vessel is in the vicinity of the SART the arcs have increased to become a set of concentric circles

Ordinary vessels using radar can pick up the distress signal from a SART, not just dedicated rescue vessels

VHF

Most yachts have a **VHF** so are able to call the coastguard/authorities to let them know they have a problem



VHF

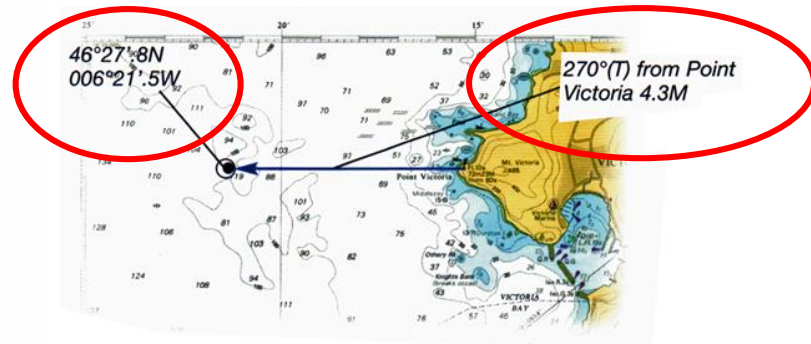
The VHF radio alerts the coastguard and other vessels in the area

They need to know 1. boat's name

2. Boat position

...either by latitude and longitude

...or range and bearing



3. number of people on board

4. the nature of the emergency and the assistance is require

VHF

Most modern sets have digital (DSC) calling

There may not be time to send a voice call so most modern VHF sets can...



- ...sends a distress alert call at the press of a button
- ...are linked to a GPS receiver to give the position to other VHF DSC stations

Further Reading



We highly recommend
RYA Boat Safety Handbook (G103)
and
RYA Sea Survival Handbook (G43)

You can buy copies of these book by visiting our on-line shop at
www.penguinsailing.com