



Australian Government

Australian Maritime Safety Authority



# AUSTRALIAN SEARCH AND RESCUE

# RESCUE COORDINATION CENTRE – AUSTRALIA



Australia has an internationally respected search and rescue (SAR) service. Under international treaties, Australia is responsible for covering one of the largest areas in the world – about one tenth of the earth's surface – some 53 million square kilometres of the Indian, Pacific and Southern Oceans, and across the Australian continent.

This search and rescue service is provided by the Rescue Coordination Centre – Australia (RCC Australia), which is part of the Australian Maritime Safety Authority (AMSA).

RCC Australia operates 24 hours a day from AMSA's Head Office in Canberra as a component of AMSA's Emergency Response Centre (ERC), and is responsible for the national coordination of both maritime and aviation search and rescue. RCC Australia is also responsible for the management and operation of the Australian ground segment of the Cospas-Sarsat distress beacon detection system.

## OUR PEOPLE

RCC Australia is staffed by search and rescue specialists who have naval, merchant marine, defence force, civil aviation or police service backgrounds. They have all had specialist training in search and rescue and liaise closely with search and rescue responders around Australia and overseas during incidents. RCC Australia also coordinates medical evacuations, broadcasts maritime safety information, operates the Australian Ship Reporting System (AUSREP) and runs the national search and rescue training school.

## OUR RESOURCES

### Dedicated Search and Rescue Aircraft



AMSA operates dedicated search and rescue aircraft from strategic locations around Australia. These Dornier 328 turbo-prop aircraft are equipped with the latest search and rescue technology including Forward Looking Infrared (FLIR), surface search radar, satellite communications and direction finding equipment to detect and home in on emergency beacon transmissions and radio distress calls. Life rafts and other emergency equipment can be deployed from the aircraft to those in distress.

## Contracted Assets



In addition to AMSA's dedicated SAR aircraft, RCC Australia maintains a database of fixed-wing and rotary-wing aircraft available for search and rescue and can call on a host of specialist SAR agencies, assets and government organisations to carry out operations.

## Emergency Towage Vessels



AMSA also operates an emergency towage capability on a needs basis from strategic locations around the Australian coastline. These emergency towage vessels are used primarily in the event of a shipping casualty.

## SAR PROCEDURE

On receiving a distress signal or being notified of a missing civil aircraft or seagoing vessel, RCC Australia will take action to establish the safety of the aircraft, vessel, vehicle, or person at the source of the signal.

This action may include:

- ▶ coordinating a search and rescue operation with assistance from organisations as appropriate, such as the Defence forces, trained aviation organisations, emergency medical helicopters, state Police services, state emergency services, the Australian Communications and Media Authority (ACMA), airlines, the general aviation industry, volunteer marine rescue groups, the Bureau of Meteorology, the shipping industry and fishing cooperatives; or
- ▶ passing coordination to the appropriate state or territory police organisation to conduct search and rescue operations within their jurisdiction.

## DISTRESS ALERTS

Traditionally, Australia's SAR authorities have been alerted to emergency incidents through radio distress calls ('maydays' or 'pan pans'), flare sightings, calls from concerned friends or relatives, or the more formal overdue ship/aircraft reports.

This in turn has usually required a painstaking evaluation of many variables such as aircraft endurance, terrain, weather, wind, currents, survival equipment carried and, of course, the skipper or pilot's experience and likely intentions.

Naturally these sorts of considerations remain very important whenever a search and rescue operation is being mounted.

# DISTRESS BEACONS

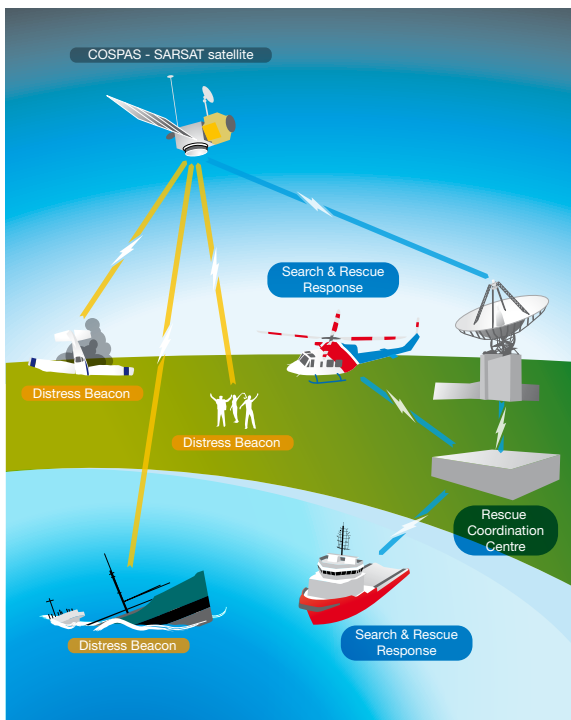


Satellite detected distress beacons have greatly enhanced the ability of SAR authorities to more quickly locate persons in distress than was previously possible.

Aviators call their distress beacons Emergency Locator Transmitters (ELTs), mounted permanently in the aircraft or Personal Locator Beacons (PLBs), which are portable and carried on the person.

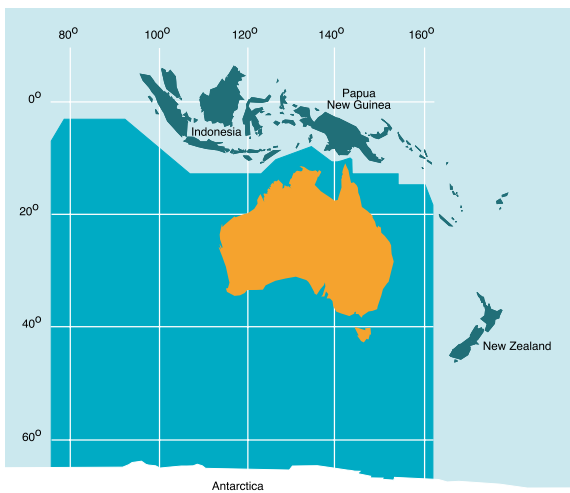
Mariners call their beacons Emergency Position Indicating Radio Beacons (EPIRBs). The main difference is an EPIRB, unlike an ELT, is designed to float in water with its antenna pointing upright.

A growing number of people also carry PLBs when enjoying outdoor pursuits such as four-wheel driving, hiking, skiing and bushwalking.



Signals from distress beacons are detected by the international Cospas-Sarsat satellite system. As the satellites pass overhead, signals are detected and relayed back to RCC Australia through ground receiver stations located at Albany, Western Australia, Bundaberg, Queensland, and Wellington in New Zealand. High-flying aircraft also often detect distress beacon signals and report these to RCC Australia.

## Accurate Detection



Digital 406 MHz distress beacons are able to be detected within minutes, and can indicate your position to within a search radius of five kilometres, and down to 120 metres or less if it has a built-in Global Positioning System (GPS). This capability reduces the time required to get an accurate fix on the beacon position, thus enhancing the speed and effectiveness of search and rescue operations.

Significantly, each 406 MHz distress beacon transmits a unique identity code that, when registered with AMSA, can be cross-referenced with RCC Australia databases for identification to confirm who is in distress; what type of vessel, aircraft or vehicle rescue authorities need to look for; and enable emergency contacts to be identified.

If you currently have an analogue 121.5 MHz distress beacon, you must upgrade to a 406 MHz beacon as soon as possible. From February 2009, 121.5 MHz beacons will no longer be detected by satellite. For further information regarding carriage and registration regulations in your State or Territory, check your Commonwealth, State or Territory authority.

# INADVERTENT ACTIVATIONS

If or when a beacon has been inadvertently activated, RCC Australia should be advised immediately on the relevant 24 hour emergency contact numbers – 1800 641 792 (maritime) or 1800 815 257 (aviation). If this activation is discovered whilst at sea, RCC Australia must be informed by the most rapid means of communication, either directly or via another station with passing instructions to urgently forward to RCC Australia. This advice is important because it prevents RCC Australia initiating unnecessary search and rescue action.

*There is no penalty for reporting  
inadvertent activations.*

To register your 406 MHz distress beacon online, or for more information visit [www.amsa.gov.au/beacons](http://www.amsa.gov.au/beacons).

# SAFETY EQUIPMENT



While satellites and satellite-compatible distress beacons have significantly improved the effectiveness of search and rescue operations, the system is not a substitute for carrying an appropriate marine or aviation radio.

Depending on the circumstances, your initial distress alert should still be made by radio if possible. You should activate your distress beacon only if radio contact cannot be made or when told to do so by a rescue authority.

Likewise, pilots and offshore mariners should never rely solely on any single safety or navigation system. They should always carry appropriate charts and safety equipment, be aware of changing weather, and operate within the limits of their own capability and the capability of their boat or aircraft.

You can help yourself and those you are responsible for by following basic rules, being prepared, and if the worst should happen, by using the right safety equipment and communications technology.

# IMPORTANT CONTACTS

## **Rescue Coordination Centre – Australia:**

Australian Maritime Safety Authority

GPO Box 2181

Canberra ACT 2601

P: 1800 641 792 (Maritime)

P: 1800 815 257 (Aviation)

## **406 MHz distress beacon information:**

P: 1800 406 406

F: 1800 406 329

## **General inquiries:**

P: 02 6279 5000

F: 02 6279 5858

[www.amsa.gov.au](http://www.amsa.gov.au)



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