McMURDO

Trusted for **Life**™

FAQ

406 Personal Location Beacons (PLBs)

Why carry a 406MHz PLB?

Personal Location Beacons (PLBs) are small emergency distress beacons for personal use, and are intended to indicate a distress situation where normal forms of communication are unavailable or do not work. A PLB should be carried as a safeguard against any life threatening incidents that may occur anywhere in the world, on land, sea or in the air. Whether alone or in a group, on holiday or at work, carrying out your sport or hobby, if you ever find yourself in a remote area, without any other form of communication, a 406 MHz PLB can be a life saver. With it, you can be confident of direct contact with the world's professional Search and Rescue Services.

Cost of ownership?

After your initial purchase, most PLBs have no additional ownership cost until your PLB needs servicing (after 6 years, unless activated). There are no call centre charges and no subscription fees or airtime contracts.

Genuine rescues in most of the world will not be charged, the cost of rescue is borne by government and the volunteers involved in Search and Rescue.

However, you should always research the area you are likely to be travelling to and if a charge for your rescue is likely, obtain the necessary Insurance cover.

Why should I register my 406 MHz PLB?

It is vital that you register your new PLB with your National EPIRB Authority. Each 406MHz PLB has a unique digital identity (a 15 digit number). This unique number is equivalent to a phone number, and it is sent along with your 406MHz distress signal to the Search and Rescue Services. Pre-registration of the PLB means that the number is recognised by the authorities when the distress signal is received.

By registering your PLB you are ensuring that the unique number is registered to you with your personal details. Lots of information, including owner's identification, next of kin, medical information etc, is recorded in conjunction with the PLBs unique number.

On activation, the distress signal is de-coded and used by the Search and Rescue teams to ascertain as much information as possible about the potential casualty. Often next of kin can provide vital time-saving information about your planned route, and whether other lives may also be at risk. It doesn't cost anything to register a PLB. All of this allows for a much faster rescue operation, leading to a higher chance of survival.

Why choose a 406MHz solution?

406MHz distress beacons are the only solution to be recognised by Cospas-Sarsat, the growing global network of dedicated Search and Rescue satellites. They are not reliant on phone signals, they do not require a subscription fee and Cospas-Sarsat is an intergovernmental cooperative which provides direct access to SAR professionals. Solutions using frequencies other than 406MHz are available, but they often use call centres to locate, track and send appropriate help and subscription fee are commonplace.

406 beacon design features include; ruggedized body, guaranteed battery run time, operational test function, Strobe location device to aid night time rescues and multiple frequencies that combine global alert and localised homing.

Who do I contact to register my 406MHz PLB?

PLBs should be purchased in your country of residence and must be registered with your national EPIRB authority. Part of the unique number stored in each PLB is a predetermined country code, therefore each PLB can only be registered in the country to which its number relates.

A part completed registration form is included with PLB units; this should be completed and sent to the relevant national administration at the address detailed on the registration form. Some administrations allow for online registration. If your form does not have a registration address, contact your supplier for further advice.

Detailed country specific information can be found at

www.cospas-sarsat.org

How do I operate a 406MHz PLB?

Operating a 406MHz PLB involves a three-stage activation, generally removal of a cap, release of the antenna and holding the 'on' button. It is purely manual and designed to significantly lessen the chances for accidental activation of a PLB.

What happens when I activate a 406MHz PLB?

In simple terms, the PLB transmits a radio signal (containing your unique number) on the 406 MHz emergency frequency which is received by an orbiting COSPAS SARSAT satellite.

The alert is then relayed via satellite ground station to a Mission Control Centers (MCC) were it is passed to the nearest Rescue Coordination Centre (RCC) who will then determine what search and rescue facilities are closest to you, and contact them to arrange a rescue.

An overview of the COSPAS SARSAT system is shown on the diagram overleaf.

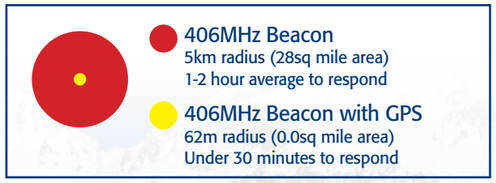
How does a PLB aid rescue?

Through the use of sophisticated technology it is possible to determine the location of a 406MHz PLB and in turn, you.

Many people opt for PLBs with internal GPS, as this allows a very accurate position to be transmitted along with the 406MHz emergency signal, saving precious time.

Why does the PLB use 121.5 MHz?

In addition to the 406MHz antenna, PLBs also have a 121.5 MHz antenna; 121.5MHz is a homing signal. It is a secondary signal that is transmitted by the PLB, so that when a search party is in the near vicinity it will pick up the signal and immediately calculate which direction it is coming from. This enables the team to get to you directly and quickly.



Some PLBs also feature a powerful flashing light, which is particularly useful at night, if a search party is trying to locate you.

How do I service my 406 MHz PLB?

On purchasing a PLB, the battery has a life of at least 6 years. If the PLB is not activated within this time then the only service necessary is the 6 year battery change. In most cases the PLB will need to be sent to an authorised Service Centre (details are available from the manufacturer), although some models do have user replaceable batteries.

The battery replacement date is printed on the PLB and in order to guarantee battery performance it must be replaced by the date given or immediately after the PLB has been used / activated.

PLB batteries are bespoke and so depending on your model, you should only have your battery changed by an authorised Service Centre, or buy a user replaceable battery from an authorised dealer.

How do I know if my 406MHz PLB is working?

All 406MHz PLBs have a built-in self-test facility which verifies operation of the PLB by checking all key features including the battery and alert transmitters.

Each self-test draws small amounts of energy from the battery pack. Unnecessary testing of the PLB will reduce the run time of the PLB in an emergency. In general, the PLB should be self-tested no more than once per month.

Will a 406MHz PLB save your life?

If a PLB is looked after and used correctly it can be your best last hope in calling for help in an emergency situation.

When you are in grave and imminent danger and all other options have been exhausted, a 406MHz PLB is your direct link to search and rescue services worldwide.

The statistics speak for themselves, see below:

COSPAS SARSAT the 406 MHz satellite system

Since its inception in 1982 the International COSPAS-SARSAT satellite-based search and rescue system, has provided distress alert information which has assisted in the rescue of over 35,000 persons in over 7,200 distress situations. The Cospas-Sarsat programme assists search and rescue (SAR) activities on a worldwide basis by providing accurate, timely and reliable distress alert and location data to the International community on a non-discriminatory basis.

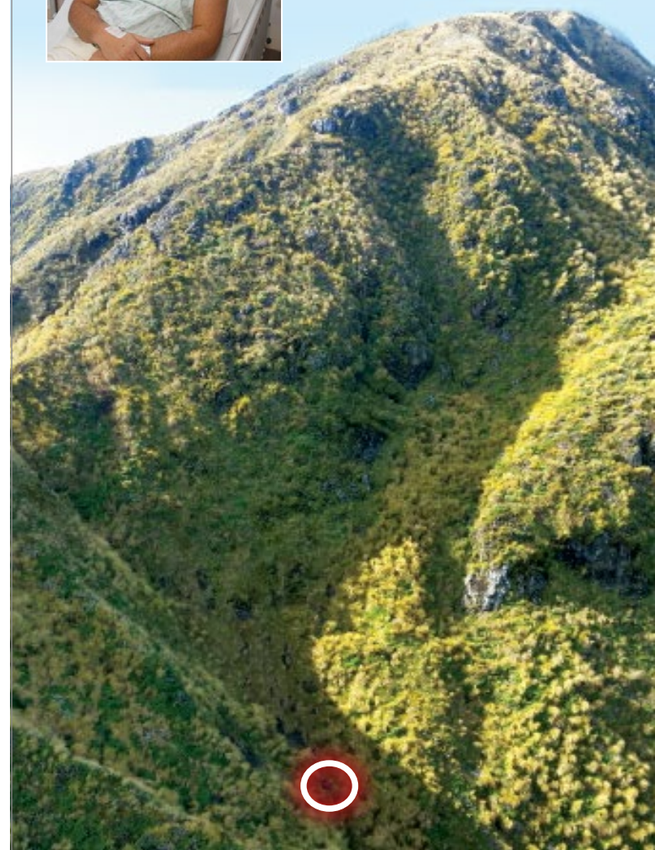
First life saved through next-generation MEOSAR search and rescue network

McMurdo instrumental in upgraded Cospas-Sarsat satellite system that found hiker 50 minutes faster than the existing system.

Don Stevens, a 53-year-old teacher from Wellington, New Zealand, was hiking over rugged terrain in the Tararua Range when he fell more than 90 feet, breaking his leg and leaving him unable to walk. After he activated his McMurdo FastFind 220 personal locator beacon (PLB), the distress signal was relayed by the MEOSAR satellite system to the Rescue Coordination Centre New Zealand in only four minutes – 50 minutes sooner than the existing system picked up the same distress signal.

McMurdo was instrumental in all phases of the rescue, from the McMurdo FastFind 220 PLB to the McMurdo designed and installed MEOSAR satellite ground stations, Mission Control Centres and Rescue Coordination Centres.

"I wouldn't be here if it weren't for that beacon"
Don Stevens



How the end-to-end satellite-based SAR Ecosystem works

1. A beacon distress signal is sent from aircraft, marine vessel or individual
2. Beacon positioning/location data is relayed by satellite communications to satellite ground stations or Local User Terminals (LUTs)
3. The Local User Terminal computes the location before sending alerts to the appropriate Mission Control Centers (MCC)
4. The Mission Control Center collects, stores and sorts the data received from LUTs and other MCCs and distributes alerts to associated Rescue Coordination Centers (RCC)
5. The Rescue Coordination Center notifies and coordinates emergency response/rescue teams

* Items in red are supplied by McMurdo Group

Who is the McMurdo Group?

The McMurdo Group combines proven brands Boatracs, Kannad, McMurdo and Techno-Sciences, Inc. into the industry's first, single-vendor provider of end-to-end lifesaving and tracking solutions including distress beacons, satellite connectivity infrastructure, monitoring/positioning software and emergency response management.

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For service and support, please contact your local distributor or service agent by visiting www.mcmurdomarine.com/find-a-service-centre or email info@mcmurdogroup.com

Learn more about our portfolio of products visit www.mcmurdogroup.com

McMurdo Group – The industry's first end-to-end life-saving and tracking solutions provider

Distress Beacons • Satellite Connectivity Infrastructure • Monitoring/Positioning Software • Emergency Response Management

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