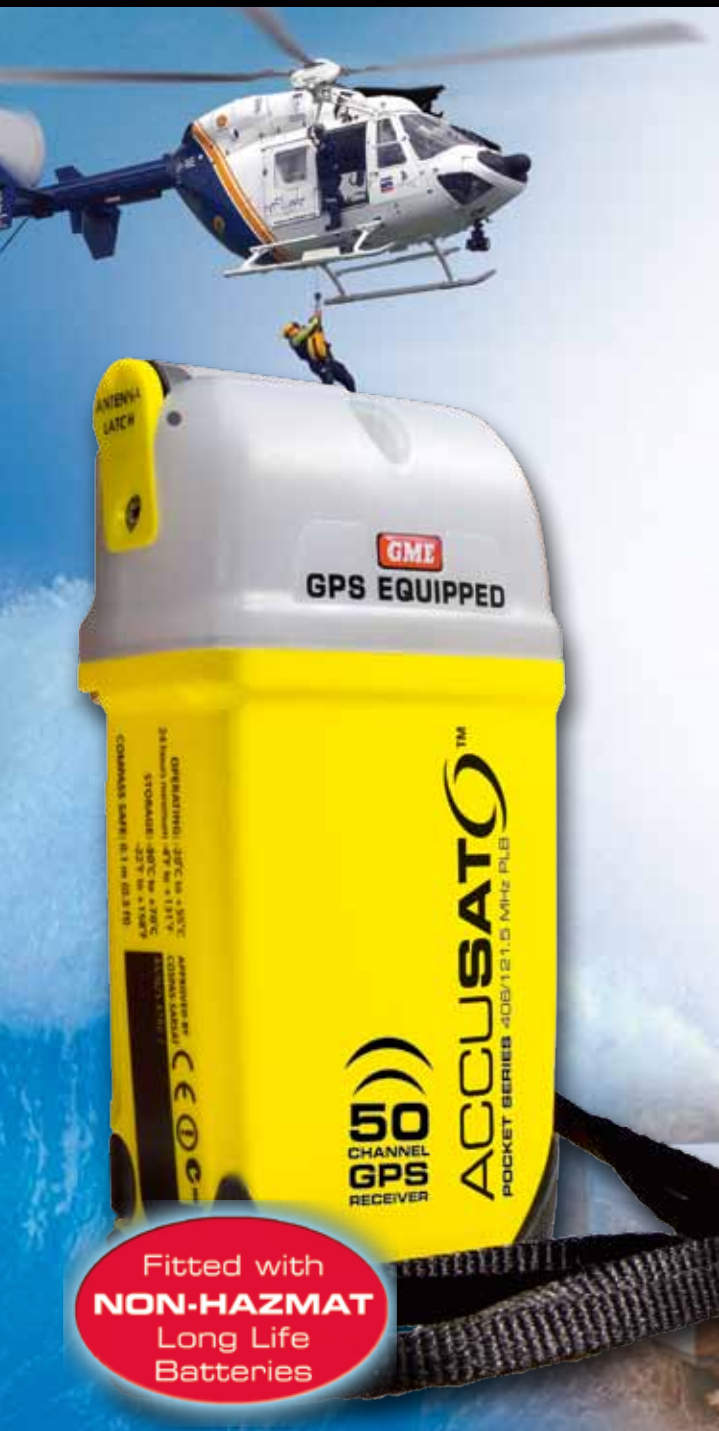
GME ACCUSAT™ SERIES EPIRBS

MT410 and MT410G 406 MHz EMERGENCY PERSONAL LOCATOR BEACONS

AUSTRALIAN MADE

- GPS option (MT410G)
- 7 year battery life, 7 year warranty
- Typical accuracy - MT410G: <100 m, MT410: <5 km
- High visibility flashing LED
- Unique patented technology - no warm up period
- Lightweight, compact and robust
- Digital 406 MHz, 5 watt transmission plus 121.5 MHz homing signal.
- COSPAS-SARSAT global operation
- National and International approvals
- Sealed waterproof design (exceeds IP67)
- Retention strap and fully buoyant design
- Protective carry pouch



www.gme.net.au

GME ACCUSAT™ SERIES EPIRBS

MT410/MT410G

GME's AccuSat Series, available with or without an integrated GPS option, are leading the world with feature innovation and user benefits.

Not only is the AccuSat Series a small, compact and lightweight PLB – both models offer a massive 7 year battery replacement life and a 7 year warranty. The high intensity LED and 'Non Hazmat' battery pack for simple and cost effective transportation, all contribute to the unique AccuSat advantage.

Since February 2009 only 406 MHz digital beacon signals will be processed by the global COSPAS-SARSAT service.

Today with cutting edge microprocessor technology, GME's engineers have been able to provide the outdoor adventurer with a 406 MHz PLB solution that is not only affordable, but provides enhanced peace of mind for boaters, bush walkers, 4 x 4 enthusiasts and aviators should they ever require emergency assistance.

GME has been designing and manufacturing emergency beacons in Australia for over 30 years. In that time literally hundreds of lives have been saved in Australia and around the world.

For information on the MT410/G or any GME product please visit our website or contact your nearest GME office.

SPECIFICATIONS

MODES OF OPERATION

Activated: UHF (406) and VHF (homer) complete with high intensity light and audible alert.

Self test: Comprehensive internal diagnostics with visual and audible operator feed-back. UHF test message (inverted synchronisation compatible with portable beacon testers). GPS satellite acquisition test (MT410G only).

OPERATION

Activation: Automatically when antenna deployed.

Duration: In excess of 24 hours at -20°C Longer at higher ambient temperatures.

Transmission: 121.5 MHz and 406 MHz

Delay: 60 seconds to de-activate prior to distress transmission.

Warm up: None required (due to patented digital frequency generation).

VHF: 121.5 MHz, 50 mW ±3 dB, swept tone AM (analogue).

UHF: 406.028 MHz, 5 W ± 2 dB, PSK (digital).

Flashing LED: > 20 flashes/minute 2 x high intensity white LED.

COSPAS-SARSAT: Certified to C/S T.001 (Class 2) requirements.

Approvals: AS/NZS 4280.2 ETSI EN 302 152-1.

UHF-protocol/data: Supports all short (MT410) and long (MT410G) operation protocols (reprogrammable by Distributor).

Repetition period: 50 s mean, digitally generated randomization.

BATTERY

Replacement period: Prior to expiry date marked on case (7 yrs).

Replacement method: Service centre or factory only (non-user replaceable).

Battery chemistry: $LiMnO_2$ (0.49 g Lithium per cell).

Battery configuration: 2 electronically isolated batteries, each consisting of 2 cell types CR123A.

PHYSICAL

Operating: -20 to +55°C

Storage: -30 to +70°C

Weight: MT410 - 235 g MT410G - 250 g.

Compass safe distance: 0.1 m (for minimal deflection).

Dimensions (mm): 135 (h) x 71 (w) x 38 (d)

Buoyant: Will float in fresh/salt water (RTCM Cat1).

Waterproof: Submersion to 1 m for 1 hour.

Materials: High visibility yellow chassis with translucent cap. UV stabilised high impact plastic chassis with energy absorbtion overmouled bumpers.

GPS RECEIVER - (MT410G ONLY)

Type: Ultra-high sensitivity L1 frequency C/A UBlox Lea-6.

Channels: 50 search channels.

Antenna: Dielectrically loaded quadrifilar helix

Acquisition: Cold start 34 seconds typical Hot start <3.5 seconds typical.

Position: Located to within 45 m typical.

OTHER FEATURES

Transport: Meets UN requirements for transport as Non-hazardous cargo on board passenger aircraft.

Antenna: Flexible and robust wire rope design. Marine grade 316 stainless steel.

Included accessories: Wrist/neck strap, protective carry pouch with multidirectional belt loops.

ISO 9001: 2008
AU97\0906
List of certified characteristics available at www.sgs.com

Specifications are subject to change without notice or obligation.

Dealer:

A division of Standard Communications Pty. Ltd.

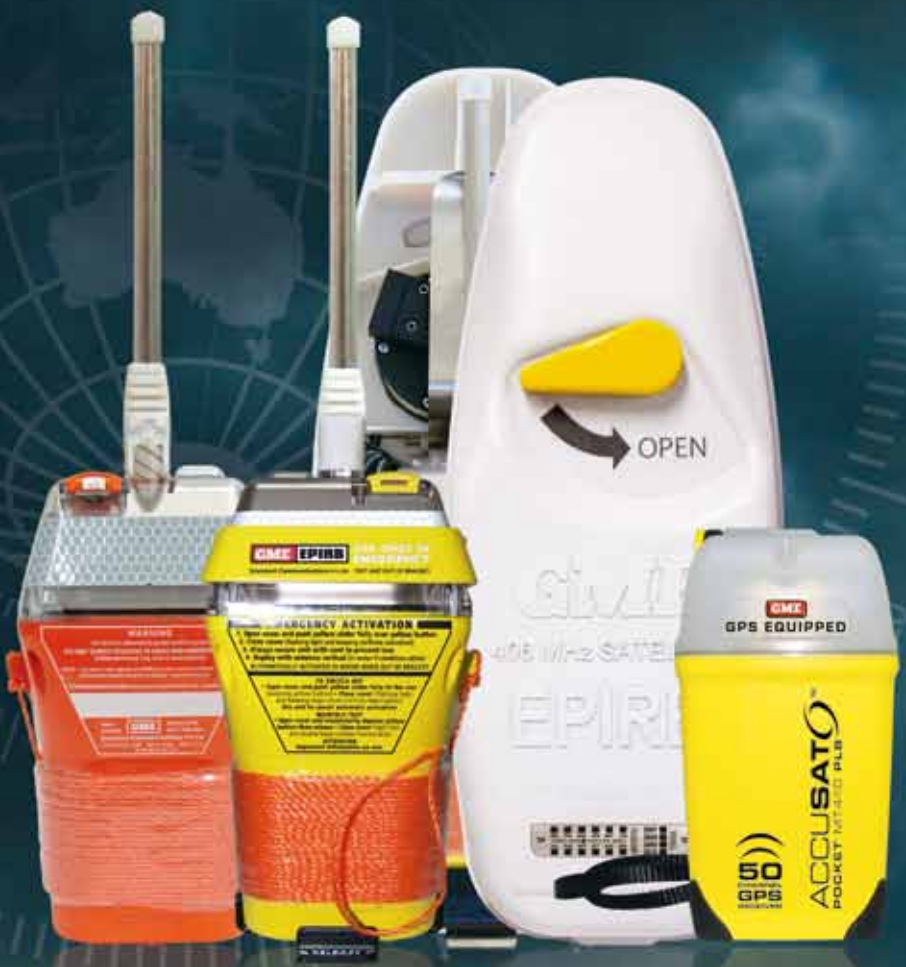
HEAD OFFICE: Locked Bag 2086 NORTH RYDE NSW 1670 Australia.
Phone: +61 (0)2 9844 6666 **Fax:** +61 (0)2 9844 6600 **Email:** export@gme.net.au
MELBOURNE: (03) 9798 0988 **BRISBANE:** (07) 3278 6444 **PERTH:** (08) 9455 5744
SYDNEY: (02) 9879 8888 **ADELAIDE:** (08) 8234 2633 **AUCKLAND:** (09) 274 0955

www.gme.net.au

Iss.8 - 06/11 - JF

GME EPIRBs & PLBs

Emergency Position Indicating Radio Beacons & Personal Locator Beacons



ACCUSAT™
EMERGENCY BEACONS

AUSTRALIAN MADE

WHY GPS EQUIPPED BEACONS?

Since the introduction of the COSPAS SARSAT system in 1982 there have been literally thousands of lives saved around the world using standard, non GPS EPIRBs and PLBs. In an emergency situation these devices transmit a 5 watt emergency signal with a unique digital identification message and position resolution to approximately 5 kms using Doppler technology through a series of Low Earth Orbiting satellites colloquially known as LEOs.

With the introduction of the complimentary Geostationary satellites (GEOs) in 1998 coupled with the development of EPIRBS and PLBs with integrated GPS receivers was truly a quantum leap for search and rescue services across the globe.

The key benefits of a GPS equipped EPIRB, are faster detection by the geostationary satellites, typically less than ten minutes anywhere in Australia or New Zealand. Non GPS beacons using low earth orbiting satellites can take up to two hours to detect an emergency signal depending on the time of day and position.

The second and arguably the most important attribute of a GPS equipped EPIRB or PLB is the accuracy of the beacons position; by transmitting latitude and longitudinal coordinates as part of the emergency message.

GPS-enhanced Emergency Beacons are without doubt the greatest ever advancement in electronic search and rescue technology. GPS now allows PLB and EPIRB signals to tell rescuers not only who you are, but also where you are to within 100 metres, as opposed to 5 kilometres with standard beacons.

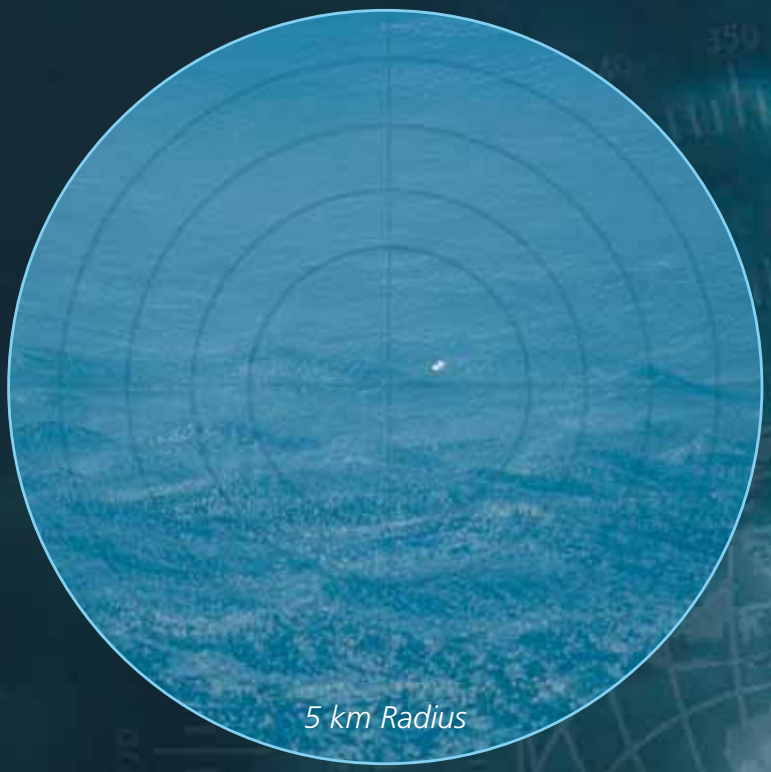
With GPS, this critical data is available in a matter of minutes, decisive benefits in situations with injured parties, cold water or poor weather, where the survival rate decreases as each minute passes.

You owe it to yourself and your loved ones to ensure that in an unforeseen emergency, search and rescue efforts are as quick and as focussed as possible.

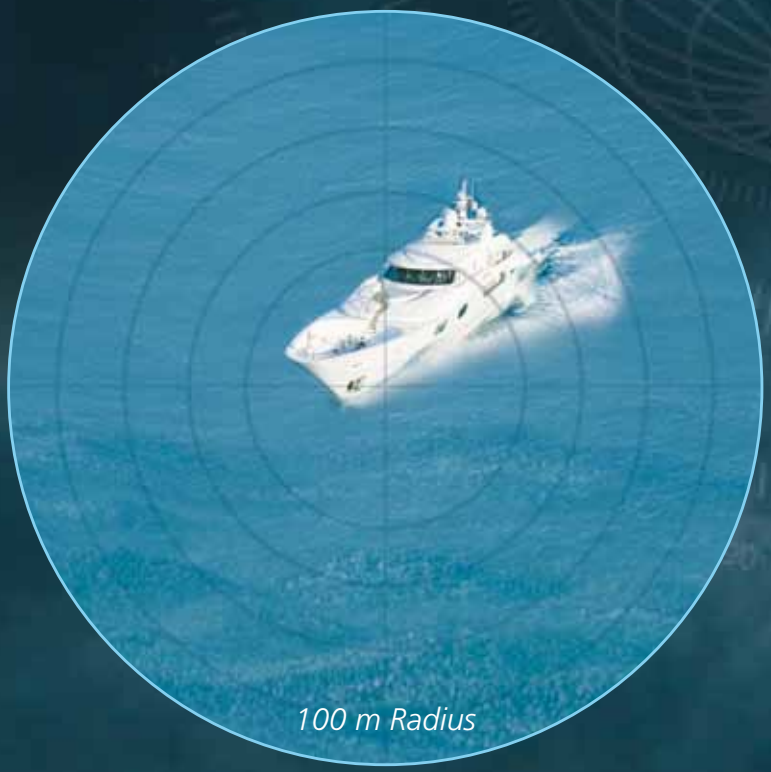
The GPS equipped beacon with its rapid alerting and a precise location could well be the difference between a successful rescue and a family tragedy.

COMPARATIVE SEARCH AREAS

NON GPS equipped EPIRB or PLB



GPS equipped EPIRB or PLB



GPS EQUIPPED 406 MHz EPIRBs

MT406G Manually Activated with GPS

- 16 channel GPS receiver.
- Top mounted Quad Helix GPS receiving antenna.
- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Rugged, lightweight,with quick release mounting bracket.
- Full Class 2 international accredited specification.
- COSPAS-SARSAT* worldwide operation.

MT403G Manual/Water Activated with GPS

- 16 channel GPS receiver.
- Top mounted Quad Helix GPS receiving antenna.
- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Automatic water activation.
- Rugged, lightweight,with quick release mounting bracket.
- Full class 2 International accredited specification
- COSPAS-SARSAT* worldwide operation.
- Non Haz-Mat battery pack.

STANDARD 406 MHz EPIRBs

MT400 Manually Activated

- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Rugged, lightweight,with quick release mounting bracket.
- Full Class 2 international accredited specification.
- COSPAS-SARSAT* worldwide operation.

MT403 Manual/Water Activated

- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Automatic water activation.
- Rugged, lightweight,with quick release mounting bracket.
- Full class 2 International accredited specification
- COSPAS-SARSAT* worldwide operation.
- Non Haz-Mat battery pack.

*COSPAS SARSAT is the international organisation that operates a series of satellites in low altitude and geostationary orbits for Search and Rescue.

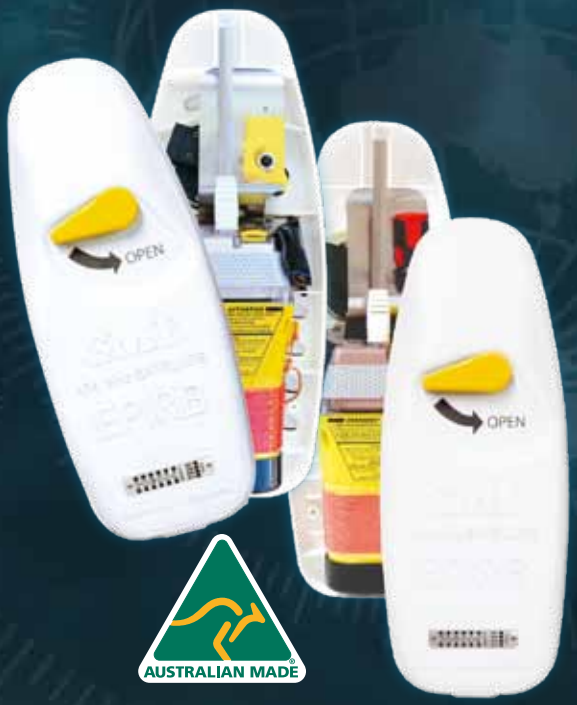
AUTO RELEASE (CAT. I) EPIRBs

MT403FG AND MT403FF

Category 1 EPIRBs are a GMDSS requirement; they are also a mandatory fit on many other surveyed commercial vessels. Today many cruising yachts and larger power boats have elected to fit an auto-release EPIRB for additional security.

Fitted with a Hammar Hydrostatic release unit ensuring the EPIRB will automatically deploy and activate should the vessel sink.

A recent United States Coast Guard safety advisory notice recommended all US commercial vessels are fitted with a GPS equipped Category 1 EPIRB.



- 16 channel GPS receiver.
- Top mounted Quad Helix GPS receiving antenna.
- Automatically deploys and activates when submerged.
- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- Easy, in-built self-test facility with audible alert.
- Rugged UV resistant housing.
- 121.5 MHz homer.
- COSPAS-SARSAT* worldwide operation.
- Non Haz-Mat battery pack.

MT403FF Standard Cat. I EPIRB

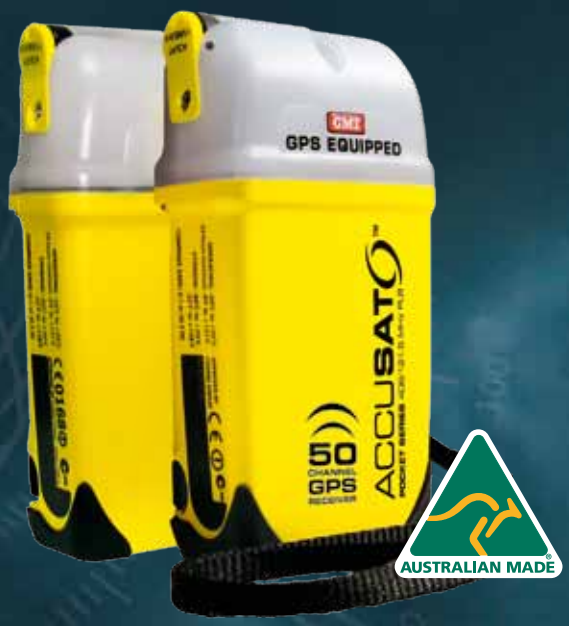
Features as the MT403FG, without the GPS receiver.

PERSONAL LOCATOR BEACONS

MT410 AND MT410G

The GME Accusat Pocket beacons represents exceptional value for money in terms of a fully featured PLB.

Simple to operate in an emergency, the MT410G is fully buoyant without any external flotation collar, waterproof, and features full time strobe style LED. The MT410G is the perfect travelling companion for all outdoor adventurers.



- 50 channel GPS receiver.
- 7 year battery life and 7 year warranty.
- Typical accuracy - MT410G: < 100 m (328 ft)
- Fully buoyant, sealed waterproof design (exceeds IP67).
- Zero warm up period.
- Rugged, lightweight compact design.
- 121.5 MHz homer.
- National and International approvals.
- High visibility flashing light.
- Suitable for marine, aviation and land applications.
- Complete with retention strap and protective carry pouch.
- COSPAS-SARSAT* worldwide operation.
- Non Haz-Mat battery pack.

MT410 Standard PLB

Features as the MT410G, without the GPS receiver.

*Items not shown to scale.

THE GME DIFFERENCE

Standard Communications/GME is a wholly owned Australian family business first established in 1959, specialising in the design, production and distribution of marine electronics, two-way radios and television signalling systems. The company has been manufacturing Emergency Beacons in Australia for over 35 years, during this time literally thousands of people have been rescued from life threatening situations by GME EPIRBs and PLBs.

GME ACCUSAT™ BEACONS SAVING LIVES IN AUSTRALIA AND AROUND THE WORLD

August 2011 - Darwin to Ambon race competitor Shady Lady sinks on return leg to Australia. The skipper and two crew members are plucked from their life craft in the Banda Sea after activating a GME MT400 EPIRB. A passing merchant vessel was directed by the Australian RCC to alter course and transfer the drifting sailors to the Torres Strait.

July 2011 - Pacific Vision, a 13.5 m sailing vessel en route from San Diego to Bundaberg, strikes the Llewellyn Reef about 150 km north-east of Gladstone after the yacht's main sail was torn and the boat drifted considerably off course. Badly damaged, the crew abandoned ship and initiated an emergency alert with their GPS equipped GME MT406G EPIRB.

January 2011 - Canadian cross country skiers participating in an outdoor survival course received an unanticipated back country experience and real world training when a female member of the party fell, severely damaging ligaments in her knee. In minus 27°C conditions, a GME MT410G GPS enabled PLB was quickly activated. The injured party was evacuated by helicopter within two hours.

September 2010 - The Sea-Doo Ultimate Charity Ride participants ran into un-forecast heavy weather in the Aegean Sea. After 3 hours of continuous punishment all three Sea-doos were beginning to take on water and were unable to make any headway in the extreme conditions. The well prepared expedition leader made the decision to activate their GME MT410G PLBs. The Greek Air Force and the Santorini Coastguard coordinated the rescue effort that culminated with all three men being safely lifted ashore by helicopter.

February 2010 - 64 Canadian students and crew are successfully rescued from the floating classroom SV Concordia after the vessel was hit by consecutive micro bursts off the coast of Brazil. Within 30 minutes the 3 master was completely underwater with all on board radio communications systems rendered inoperable; however her GME Accusat MT403FF float free EPIRB automatically activated, alerting the Brazilian coastguard who coordinated the rescue.

December 2009 - Five days into the ten day trekking holiday in Southern Chile's Patagonian mountains two experienced Australian hikers are caught in a freak blizzard, unable to move up or down the mountain, they dig a snow cave and set off their GME GPS enabled MT410G. The emergency signal is relayed to Chilean RCC in Punta Arenas where a rescue team is despatched directly to the reported position.

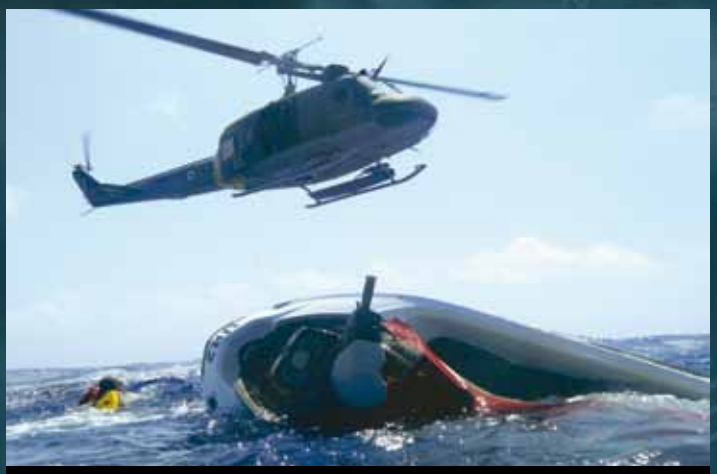
For additional and more detailed survival stories please visit **www.gme.net.au/news**

EPIRBs VERSES PLBs - WHAT IS THE LAW?

Within Australia, all States and the Northern Territory require recreational vessels to carry an EPIRB, generally when operating more than 2 nautical miles from the coast. However, it is strongly recommended that all craft venturing into coastal waters carry one.

EPIRBs are designed to float in the water to optimise the signal to the satellite. Under Australian/New Zealand approval standard AS/NZ4280.1, an EPIRB is required to operate for a minimum of 48 hours continuously once activated.

PLBs are designed for personal use on the land, aviation and marine environments. PLBs are generally considered a multi-environment beacon. They are required to operate for a minimum of 24 hours once activated. PLBs are approved to a separate standard (AS/NZ 4280.2) and are not an acceptable substitute for mandatory EPIRB carriage under Australian State and Territory legislation.



The Sea-Doo Ultimate Charity Ride Rescue - September 2010

BEACON REGISTRATION IS MANDATORY

It is mandatory that all 406 MHz EPIRBs and PLBs are correctly registered with the appropriate national authority. Registration is free and forms are included with all beacons.

EPIRB/PLB SPECIFICATIONS

MODES OF OPERATION	MT400	MT406G	MT403	MT403FF	MT403G	MT403FG	MT410	MT410G
Activated	UHF (406 MHz) and VHF (121.5 MHz Homer) complete with high intensity strobe and audible alert.							
UHF/VHF Self Test	Comprehensive internal diagnostics with visual and audible operator feed-back. UHF test message (inverted synchronisation compatible with portable beacon testers).							
GPS Self Test	-	User selectable GPS signal acquisition test function	-	-	User selectable GPS signal acquisition test function		-	User selectable GPS signal acquisition test function
OPERATION								
Activation	Manual Switch	Manual Switch	Water or manual	Auto release	Water or manual	Auto release		Deploy antenna
Duration			48 hours minimum					24 hrs minimum
Transmission	406 MHz and 121.5 MHz							
Delay	Emergency signals commence approximately 60 seconds after activation							
Warm Up	None required due to digital frequency generation							
VHF	121.5 MHz, 50 mW ± 3 dB, swept tone AM							
UHF	406.028 MHz		406.037 MHz 5 watts ± 2 dB, PSK (digital)					406.028 MHz
Strobe	Solid Sate - > 0.75 Candela effective intensity							
LED							20 flashes / minute, high intensity white LED	
GPS								
GPS Receiver	-	16 Channel	-	-	16 Channel	16 Channel	-	50 channel
GPS Antenna	-	Dielectrically loaded Quadrifilar Helix	-	-	Dielectrically loaded Quadrifilar Helix		-	Dielectrically loaded Quadrifilar Helix
Acquisition - Cold Start	-	< 90 seconds typically	-	-	< 90 seconds typically		-	34 seconds typical
Acquisition - Hot Start	-	3.5 seconds typically	-	-	3.5 seconds typically		-	<3.5 seconds typical
Position	-	< 100 m (328 ft) typically	-	-	< 100 m (328 ft) typically		-	<100 m (328 ft) typical
COSPAS-SARSAT								
UHF-Protocol/Data	All approved EPIRB short protocols	All approved EPIRB long protocols	All approved EPIRB short protocols		All approved EPIRB long protocols		-	All long location protocols
VHF Homer	121.5 MHz Homing Frequency							
APPROVALS*								
COSPAS-SARSAT	C/S T.001/T.007 Certified to Class 2 Requirements.							
GMDSS Compliance	-	-	-	IMO A810 (19), as amended	-	IMO A810 (19), as amended	-	-
Australia and New Zealand	AS/NZ4280.1:2003							AS/NZ4280.2
International	-	-	MED Wheelmark® and RTCM/USCG					CE and FCC
BATTERY								
Replacement	6 years from service centre or factory (non-user replaceable)						7 years from service centre or factory (non-user replaceable)	
Chemistry	$LiSO_2$ (2.4g of lithium per cell)		$LiMnO_2$ (0.49 g of lithium per cell)					
No./Size	2 D Size cells		5 parallel packs of 2 series cells				4 CR17345/123A size cells	
PHYSICAL								
Operating	-20°C to +55°C (-4°F to +131°F)							
Storage	-30°C to +70°C (-22°F to +158°F)							
Weight (+ bracket)	535 (+ 98) g 1.18 (+ 0.21) lbs	570 (+ 98) g 1.25 (+ 0.21) lbs	545 (+ 98) g 1.20 (+ 0.21) lbs	545 (+1100) g 1.20 (+ 2.42) lbs	570 (+ 98) g 1.26 (+ 0.22) lbs	570 (+1100) g 1.26 (+ 2.42) lbs	235 g 0.52 lbs	250 g 0.55 lbs
Compass Safe Distance	0.1 m (0.23 ft)		0.7 m (2.3 ft)					0.1 m (0.32 ft)
Dimensions H x W x D mm (inches)	260 x 102 x 82 (10.24 x 4.02 x 3.22)		260 x 120 x 83 (10.24 x 4.72 x 3.26)		386 x 158 x 103 (15.19 x 6.22 x 4.05)			135 x 71 x 38 (5.31 x 2.79 x 1.49)
Auto Release Mechanism	-	-	-	SOLAS approved Hammar H20	-	SOLAS approved Hammar H20	-	-
OTHER FEATURES								
Retention Lanyard	Buoyant type approximately 5.5 m (18 ft)						-	-
Reflector	SOLAS retro-reflective tape encircling unit above waterline						-	-
Antenna	Flexible self straightening stainless steel tape						High durability stainless steel wire	
Stowage	Quick release manual bracket			Auto float free	Quick Release manual bracket	Auto float free		Padded carry pouch
Transportation	Category 9		Meets UN requirements for transport as non-hazardous cargo on board passenger aircraft					
Flotation	Waterproof to IP67 and buoyant						Waterproof and buoyant without flotation collar	

Specifications are subject to change without notice or obligation. *For full list of international approvals see www.gme.net.au

COSPAS SARSAT RTCM

GME is a division of: **Standard Communications** PTY. LTD.
HEAD OFFICE: Locked Bag 2086 North Ryde, NSW 1670, Australia.
PHONE: +61 (0)2 9844 6666 **FAX:** +61 (0)2 9844 6600
SYDNEY: (02) 9879 8888 **BRISBANE:** (07) 3278 6444 **MELBOURNE:** (03) 9798 0988
PERTH: (08) 9455 5744 **ADELAIDE:** (08) 8234 2633 **AUCKLAND:** (09) 274 0955

Retailer: