



## Consultation Paper

### Personal Locator Beacons (PLBs)

Consultation on Regularising the use of Personal Locator Beacons (PLBs)

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All responses to this consultation should be clearly marked:-  
**“Consultation on Regularising the use of Personal Locator Beacons (PLBs) 08/88”** as indicated above, and sent by post, facsimile, e-mail or on-line at [www.comreg.ie](http://www.comreg.ie), to arrive on or before 5pm, **19 December 2008**:

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Please note ComReg will publish all respondents' submissions with the Response to this Consultation, subject to the provisions of ComReg's guidelines on the treatment of confidential information – ComReg 05/24.

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## 1 Foreword

Personal Locator Beacons, or PLBs, are portable radio transmitters, which aid the Search & Rescue (SAR) emergency services in the detection and location of persons in distress. These devices operate in a similar manner to Emergency Position Indicating Radio Beacon (EPIRBs) onboard vessels and Emergency Locator Transmitters (ELTs) onboard aircraft.

ELTs and EPIRBs have been in operation for several years are proven technologies, which have resulted in many successful search and rescues missions since their inception. More recently technological advances have enabled the construction of light-weight, hand-portable distress transmitters and hence the relatively recent emergence of PLBs onto the market.

When used correctly and registered the PLB helps to identify the owner and their location to the emergency services. However, the potential mass proliferation of such devices and the possibility for misuse could place an undue and unnecessary burden on the responding emergency services.

ComReg wishes to ascertain if there is a growing demand for the use of PLBs but is particularly aware that any future use of PLBs must be regularised. ComReg therefore welcomes comments from all interested parties in response to this consultation.

The views and suggestions received will help inform ComReg as it develops its regulatory framework for these devices.

Mike Byrne

Commissioner

Commission for Communications Regulation

## 2 Executive Summary

The purpose of this consultation is to elicit the demand for the use of Personal Locator Beacons (PLBs) and canvass external opinions on what the legal and regulatory requirements would be if the use of PLBs was to be extended beyond what is currently provided for.

PLBs are just one of the three types of 406 MHz<sup>1</sup> beacons which are used to assist emergency search and rescue services locate and identify ships, aircraft or individuals in distress. To date, only individuals who possess a valid ships radio licence or an aircraft radio licence are permitted to register a PLB. However the worldwide increase in the use of PLBs by persons engaged in outdoor pursuits such as hiking, hunting and skiing, has prompted ComReg to consider the implications and requirements for regularising the usage of these devices for inland use.

As ComReg cannot prohibit the sale of properly manufactured PLBs, the Commission is conscious that the unregulated and unregistered proliferation of these devices could place a large and unnecessary burden on the emergency services. As such ComReg is seeking responses to the fundamental question of whether the use of these devices should be sanctioned for use by individuals for non-maritime or non-aviation pursuits. In addition, ComReg is seeking opinions on the issues of licensing and the compulsory registration of PLB, should their use for ground-based inland activities be authorised.

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<sup>1</sup> Note that older analogue beacons operating on 121.5 MHz are being phased out and will no longer have satellite detection cover with effect from 01 February 2009

### 3 Introduction

ComReg is the statutory body charged with regulating the electronic communications and postal sectors in the state. To fulfil its statutory obligations ComReg enforces national legislation<sup>2</sup> which provides that all apparatus for wireless telegraphy must be licensed unless specifically exempted from requiring a licence.

Ships<sup>3</sup> and aircraft are equipped with emergency locator beacons referred to as Emergency Position-Indicating Radio Beacons (*EPIRBs*) for ships and Emergency Locator Transmitters (*ELTs*) for aircraft. When activated both EPIRBs and ELTs function as tracking transmitters, by emitting a signal on 406 MHz, to assist Search & Rescue Services identify and locate the vessel or aircraft in distress. As such EPIRBs and ELTs are classed as apparatus for wireless telegraphy and are currently licensed in conjunction with the ships radio or aircraft radio licence, with which they are associated.

The beacons interface with the international satellite system for Search and Rescue, Cospas-Sarsat<sup>4</sup>. When activated, such beacons send out a distress signal that is detected by the Cospas-Sarsat satellite network, which relays the distress signal to a network of ground stations, which in turn alert the appropriate (national) search and rescue authorities. Each EPIRB/ELT has a unique identifying code, which includes a country code and this information is transmitted as part of the distress beacon. The beacon's unique identifying code and the owner's contact details as well as the ship's/aircraft's details are maintained in a national registry. In Ireland the Maritime Radio Affairs Unit (MRAU) of the Department of Transport holds the official register of the marine EPIRBs while the Irish Aviation Authority maintains the register of aircraft ELTs. The Coast Guard is designated as the national point of contact in the event of a beacon activation and has access to the information from both registers. It is also the body tasked with responding to EPIRB/ELT activations.

The licensing, registration and operation of EPIRBs and ELTs are well standardised and have been in existence for several years. However, the emergence of PLBs as a mass market product is a relatively recent development, which raises safety, legal, regulatory and resource implications for ComReg and other agencies. As PLBs operate in exactly the same fashion as EPIRBs and ELTs they are subject to the same legal provisions. It is therefore ComReg's responsibility to determine the appropriate regulatory framework for the use of such devices in Ireland.

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<sup>2</sup> Wireless Telegraphy Act 1926-1988

<sup>3</sup> The term "ship" is a generic term used for all water-borne vessels, including sailing boats, pleasure craft etc., which have a radio installed

<sup>4</sup> Cospas-Sarsat is an international satellite-based search and rescue (SAR) distress alert detection and information distribution system, established by Canada, France, the United States, and the former Soviet Union in 1979. COSPAS is an acronym for the Russian words "Cosmicheskaya Sistyema Poiska Avaryynikh Sudov", which translates to "Space System for the Search of Vessels in Distress". SARSAT is an acronym for Search And Rescue Satellite-Aided Tracking

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The “land-based” use of PLBs is permitted in several countries worldwide including, USA, Canada, Australia, New Zealand, and Russia. The United Kingdom has currently prohibited the inland use of UK-registered PLBs but their use for maritime and aviation purposes is permitted.

It is inevitable with such widespread international use that PLBs will eventually be procured by people travelling abroad or purchased over the internet and subsequently used in Ireland by those engaged in land-based outdoor pursuits. Additionally, it is highly likely that non-nationals from countries where the unrestricted use of PLBs is permitted will bring their properly registered PLB to Ireland while engaging in some non-maritime outdoor pursuit. As such, ComReg wishes to consider all aspects surrounding the potential sale and use of PLBs in this jurisdiction.

ComReg hopes to elicit the views of all interested individuals, interest groups and agencies (state and non-state) to gain perspective on the demand for such devices and the regulatory framework which should apply.

### 4 Equipment Quality & European Legislation

ComReg is responsible for enforcing the EU Radio and Telecommunications Terminal Equipment Directive 1999/5/EC (“R&TTE Directive”) which was transposed into Irish law as the European Communities (Radio Equipment and Telecommunications Terminal Equipment) Regulations, 2001 (S.I. No 240 of 2001).

In general, this Directive is intended to facilitate the free movement and sales of radio and telecommunications equipment within the EU, provided that the equipment meets certain minimum requirements, which ensure it is safe to use and does not cause interference to radio services or other equipment.

Once a piece of radio equipment, such as a PLB, meets the essential requirements of the R&TTE Directive, ComReg cannot prohibit its sale in Ireland. For this reason the question of whether to ban the sale of PLBs in Ireland is not being considered as part of this consultation.

ComReg can however place certain restrictions on the **use** of PLBs within the state and one of the purposes of this paper is to receive opinions on what restrictions, if any, should be placed on the use of PLBs.

### 5 Restricted Use

At present it is only possible to register a PLB as part of a ships radio licence (EPIRB) or an aircraft radio licence (ELT). The result is that some people, who are licensed operators of a ships radio or an aircraft radio, can avail of the benefits accruing from the ownership of a PLB. The PLB owner’s personal details are maintained in a registration database which is available to the emergency services (the Coast Guard in Ireland) in the event of an activation of the beacon.

Current models of PLBs are sized a little bigger than a Blackberry, weigh approximately 350g and can be carried by boaters, fishermen, hikers, skiers,

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campers, outdoor adventurers or pilots flying over remote regions. This makes them attractive for people who go into remote areas, individuals who sail on other people's boats, or for example, delivery boat skippers who are not associated with one particular vessel and need to bring all their own safety equipment with them. While EPIRBs are registered to a vessel and transmit that vessel's information, PLBs are associated with their owners and stay with the owner wherever he or she goes.

**Q. 1. Should the use of PLBs be limited to those who are licensed through a ship or aircraft radio licence OR should any person be permitted to use a PLB? Please give reasons for your answers.**

### 6 Licensing

Section 3 of the Wireless Telegraphy Act 1926 to 1988 provides that all apparatus for wireless telegraphy must, unless specifically exempted, be covered by a valid licence. PLBs are classed as apparatus for wireless telegraphy and therefore owners are required to have a valid licence. Licensing a PLB is currently possible under a ships radio or aircraft radio licence but if the use of PLBs is to be extended to groups or individuals outside those currently permitted, should all PLBs be exempted from requiring a licence.

**Q. 2. If the use of PLBs is widely permitted, should the devices require a licence or be specifically exempted from requiring a licence? Please give reasons for your answer.**

### 7 Registration

In all countries which permit the use of PLBs, whether restricted to maritime and aviation use or otherwise, it is a requirement for PLB owners to register their personal and equipment details in a database which is made available to the responding emergency services.

The beacon's unique identification code is linked to the owners personal details, so in the event of an activation the emergency services will know, through the owner's designated emergency contacts, what type of vessel, aircraft or vehicle the owner is in - or if the owner is hiking, hunting or diving. The responding emergency services may also be able to find out exactly who is with the owner and how long the owner has been gone, so they can adequately assign resources in order to be best positioned to offer assistance when the owner is located.

Registering a beacon also helps to eliminate false alarms, which divert search and rescue resources away from genuine emergencies.

**Q. 3. Should PLB registration be mandatory in law? Please outline the reasoning for your answer.**

**Q. 4. Should there be a charge attached to registration? Please give reasons for your answer**

**Q. 5. Should the onus be on the seller or the buyer to carry out any registration? Please support your answer.**

## 8 Equipment Standard

All PLBs, must comply with the essential requirements of the R&TTE Directive<sup>5</sup>. Equipment which meets these standards bear the CE mark and have a Declaration of Conformity (DoC) accompanying the device. This declaration is a statement by the manufacturer or his representative, who is placing the equipment on the market, that the equipment is safe to use and will not cause harmful interference.

It is an offence to place on the market (sell) or put into service (use) any equipment which does not comply with the Directive and therefore compliance with the R&TTE Directive is the minimum requirement for all PLBs. However, there are different categories of PLBs as follows,

- (1) PLBs with integrated Global Positioning System (GPS)
- (2) PLBs without integrated GPS

PLBs with integrated GPS send the beacon's location information as part of the distress signal while PLBs without integrated information send the distress signal and then depend on the international satellite system for search and rescue to determine its location. The second method, which depends solely on the international satellite system for search and rescue to determine the location of the activated beacon, is more time and resource consuming but effective nonetheless.

**Q. 6. Prior to sanctioning any future use of PLBs should ComReg insist that all such PLBs have integrated GPS\*? Please give reasons for your answer.**

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<sup>5</sup> Decision 1999/5/EC, Radio and Telecommunications Terminal Equipment Directive<sup>5</sup> (R&TTE Directive), is an EU-wide directive, which was transposed into Irish law by Statutory Instrument (S.I.) 240 of 2001 entitled "European Communities (Radio Equipment and Telecommunications Terminal Equipment) Regulations, 2001



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\*(Note: ComReg cannot prevent the sale of PLBs without integrated GPS but may restrict their use)

### 9 Submitting Comments

The consultation period will run from **17<sup>th</sup> November 2008** to **19<sup>th</sup> December 2008** during which the Commission welcomes written comments on any of the issues raised in this paper.

Having analysed and considered the comments received, ComReg will publish a report in early 2009 on the consultation which will, inter alia, summarise the responses to the consultation.

All comments are welcome; however it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.

In order to promote further openness and transparency ComReg will publish all respondents' submissions to this consultation, subject to the provisions of ComReg's guidelines on the treatment of confidential information – ComReg 05/24

#### **Please note**

ComReg appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful.

As it is ComReg's policy to make all responses available on its web-site and for inspection generally, respondents to consultations are requested to clearly identify confidential material and place confidential material in a separate annex to their response

Such Information will be treated subject to the provisions of ComReg's guidelines on the treatment of confidential information – ComReg 05/24

## Appendix A – Consultation Questions

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