

# Canadian Mission Control Center Canadian Beacon Registry



Beacon Manufacturers Workshop  
Captain Keith Wohlgemuth

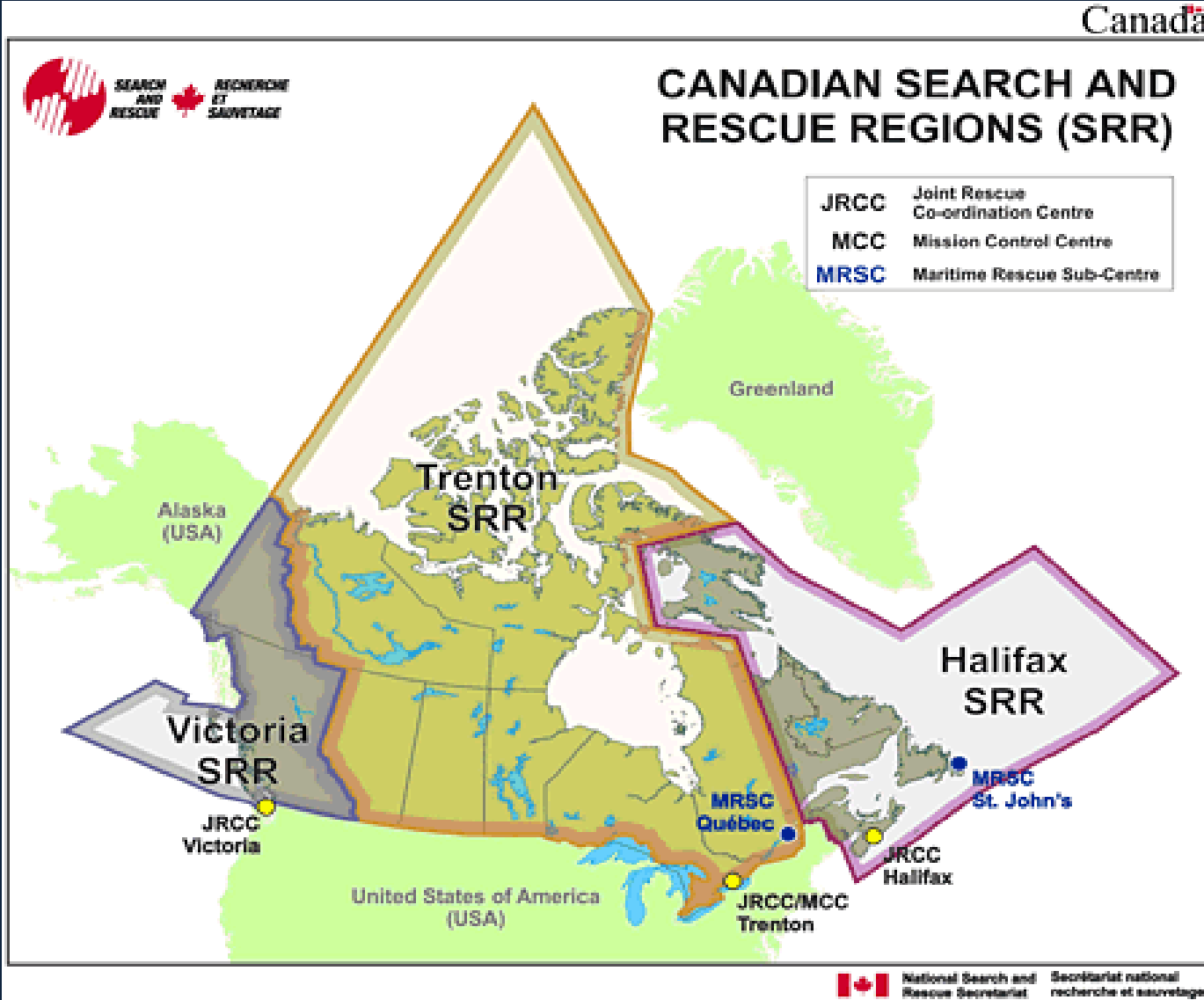


# Outline

- CMCC & CBR Intro
- CBR Demo
- CBR Activity
- ABRC
- Beacon Anomalies
- What can you do to help?
- Contact Information and Questions



# CMCC & CBR Intro - Canadian AOR



# CMCC & CBR Intro

- Officer in Charge: Maj Gilles Bourgoin
  - Deputy OIC: Capt Keith Wohlgemuth
  - CBR Manager: Ms. Angie Cornish
- 
- ~ 23,500 as of last BMW (May 2011)
  - ~ 27,000 as of now (15% increase)
- (contact info at end of presentation)



# CBR Demo

[www.cbr-rcb.ca](http://www.cbr-rcb.ca)

- Rolled out on 17 Sept 2012
- Fully bilingual
- Fully accessible in accordance with current internet standards.
- How successful has the implementation been?
  - Old website – 1 to 2 calls per day on how to use the website.
  - New website – not 1 yet!!!
  - Normal usage rates.





# Canadian Beacon Registry

[www.cbr-rcb.ca](http://www.cbr-rcb.ca)

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- Canadian Beacon Registry**
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## Canadian Beacon Registry - Welcome

The Canadian Beacon Registry is an integral part of COSPAS-SARSAT, the search and rescue satellite system designed to provide distress alert and location data to search and rescue authorities. The Canadian Beacon Registry is co-located with the Canadian Mission Control Centre (CMCC) at CFB Trenton, for use by responders in search and rescue operations.

When a 406 MHz emergency beacon signal is received, search and rescue authorities at CMCC can retrieve information from a registration database. This includes beacon owner contact information, emergency contact information, and vessel/aircraft identifying characteristics and equipment. Having this information allows search and rescue services to respond appropriately.

\*\*\*\*\* FOR BEACON TRANSFERS, PLEASE CONTACT THE CANADIAN BEACON REGISTRY AT 1-877-406-7671 or Via email to [cbr@sarnet.dnd.ca](mailto:cbr@sarnet.dnd.ca) \*\*\*\*\*

## Why Register a Beacon?

It is mandatory for all 406 MHz ELTs (Canadian Aviation Regulations 605.38) and EPIRBs (Ship Station (Radio) Technical Regulations, 1999) to be registered with the Canadian Beacon Registry. Ensuring that your 406 MHz PLB, ELT or EPIRB is registered, as well as updating the information regularly, will facilitate the task for search and rescue personnel in the event of a distress situation.

If you have a registered emergency beacon, it is important that the information be accurate. Please update the information in the registry:

• if you move



**Canadian Beacon****Registry**[Home](#)[Frequently Asked Questions](#)[Beacon Registration Forms](#)[Login / Register Online](#)[Links](#)[Contact Us](#)[Proactive Disclosure](#)

## Frequently Asked Questions

- [1. What is an emergency beacon?](#)
- [2. What types of emergency beacons are there?](#)
- [3. How does an emergency beacon work?](#)
- [4. Is there any cost to registering an emergency beacon?](#)
- [5. How do I know if my emergency beacon is Canadian coded and what does it mean if it is not?](#)
- [6. How do I get my emergency beacon coded for Canada?](#)
- [7. Can I purchase an emergency beacon in the US or another country outside Canada?](#)
- [8. Why switch to a 406?](#)
- [9. Will I get fined if I accidentally activate an emergency beacon?](#)
- [10. Will the emergency beacon activate if its battery is expired?](#)
- [11. If my emergency beacon is not in use, can I leave it in a safe place such as storage?](#)
- [12. How do I decode my Beacon?](#)
- [13. I've heard that 406 MHz homing equipment is very expensive to buy and quite cumbersome to operate. Do 406 MHz emergency beacons require 406 MHz homing equipment?](#)
- [14. Do I need to have a 406 MHz ELT on board my aircraft if I file a flight plan with NAV Canada?](#)
- [15. What is the difference between an emergency beacon with Global Positioning System \(GPS\) and one without GPS?](#)
- [16. Does having a GPS-equipped emergency beacon improve search and rescue response time?](#)
- [17. When the Cospas-Sarsat system ceases to process the 121.5/243 MHz signals, will the Canadian Mission Control Centre \(CMCC\) still receive an alert during a distress situation?](#)
- [18. Will homing devices such as man overboard devices \(Maritime Survival Locator Devices - MSLDs\) that use 121.5 MHz be affected by Cospas-Sarsat decision to terminate processing of the 121.5 MHz?](#)
- [19. What happens if I haven't purchased a 406 MHz emergency beacon to replace my 121.5 MHz beacon by February 1 2009?](#)
- [20. Is it true that Cospas-Sarsat requires that 406 MHz emergency beacons do not send a signal in the first 50 seconds following activation, to minimize false alerts?](#)
- [21. What is the MEOSAR system and what is the status of it?](#)
- [22. Will GPS equipped emergency beacons - or location protocol beacons - become obsolete with MEOSAR?](#)
- [23. If my emergency beacon is not registered, will search and rescue authorities at Canadian Mission Control Centre \(CMCC\) be advised if the beacon is activated?](#)
- [24. Once I register my emergency beacon, will the registration expire?](#)
- [25. Will someone send me a reminder to renew my registration?](#)
- [26. To whom is my emergency beacon registration information released?](#)
- [27. Do I need a ship station license or a documentation number to register an EPIRB?](#)
- [28. I have just purchased an emergency beacon from a manufacturer. Doesn't that mean it is already registered?](#)
- [29. Will the dealer register my emergency beacon when I purchase it?](#)
- [30. If I buy a new boat and use the emergency beacon from my old boat, do I need to register it?](#)
- [31. If I sell my boat with an EPIRB, is it the new owner's responsibility to update the beacon registration?](#)
- [32. If I buy a new emergency beacon for my vessel, do I need to register it? My former emergency beacon was registered therefore, isn't my information already in the registry?](#)
- [33. How do I get my 24-bit aircraft identification number?](#)





# Canadian Beacon Registry

www.cbr-rcb.ca

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[Home Page](#) > [Login / Register](#) > Personal Information

## Owner Profile

**PROFILE**

**BEACON**

**CONTACTS**

**AIRCRAFT**

**VESSEL**

**LAND**

**LOGOUT**

User name: cmcc2@sarnet.dnd.ca (21667)

[Change Password](#)

### Your Profile

**GILLES BOURGOIN**

142 YUKON

ASTRA ONTARIO

K0K 3W0

CANADA

bourgoing@sarnet.dnd.ca

### Your Phone Numbers On File

Work: CANADA (613) 965-7265

[Update your info](#)





# Beacon Information

[PROFILE](#)[BEACON](#)[CONTACTS](#)[AIRCRAFT](#)[VESSEL](#)[LAND](#)[LOGOUT](#)

User name: cmcc2@sarnet.dnd.ca (21667)

If you are registering a new beacon, you can enter your information here. If you have bought your beacon from a previously registered owner you will need to contact the Canadian Beacon Registry (CBR) to inform them of your purchase. They in turn can transfer all beacon information to your account. Once you've registered your beacon be sure to register emergency contacts to the beacon as well as where that beacon will be used. For example, on an aircraft, vessel or land activity.

To register a new beacon click on the '[+ Add A Beacon link](#)'.

To view registered beacon information, click on the beacon hexcode or nickname.

To edit information on a registered beacon, click on the beacon hexcode or nickname then click the edit link and follow the instructions given.

\*\*\* Please add a minimum of two emergency contacts to your registration. Click on CONTACTS tab to add your emergency contacts. Once added, please attach them to the specific beacon that they correspond to. \*\*\*\*

## Your Registered Beacons

[+ Add A Beacon](#)

2787840000FFBFF

Updated 3 January, 2012

278E6DA9B8FFBFF

Updated 30 July, 2012

2794F1203F81FE0

Updated 3 January, 2012

2787840000FFBFF

Updated 3 January, 2012

278E6DA9B8FFBFF

Updated 30 July, 2012

Type ..... PLB [[Edit](#)]

Current Status ..... Active and in Use

Current Location ..... TESTING (assignment)

Emergency Contacts ..... BRUCE WAYNE  
CMCC DUTY OPERATOR

2794F1203F81FE0

Updated 3 January, 2012



# Edit Beacon Information

PROFILE

**BEACON**

CONTACTS

AIRCRAFT

VESSEL

LAND

LOGOUT

User name: cmcc2@sarnet.dnd.ca (21667)

## Beacon Information

Hex Code	<b>278E6DA9B8FFBFF</b>
Type	<b>PLB</b>
Manufacturer	<b>ACR Electronics Inc</b>
Model	<b>PLB-375 (ResQLink)</b>
Status	Active and in Use <input type="button" value="v"/>
Internal Tracking Number / Nickname	<input type="text"/>
Comments	<div style="border: 1px solid black; background-color: #f0f0f0; padding: 5px; min-height: 100px;"><p>SEARCH ONLY MESSAGE ONLY</p></div>
Date Registered	<b>2011-11-08 15:09:47.000</b>
Last Updated On	<b>2012-07-30 17:32:08.000</b>

Save

Cancel



# Enter Beacon Information

PROFILE

BEACON

CONTACTS

AIRCRAFT

VESSEL

LAND

LOGOUT

User name: cmcc2@sarnet.dnd.ca (21667)

The Hexcode and Checksum information can be found on the beacon you wish to register. The Checksum, while optional, will allow the system to verify that the Hexcode you have entered is in fact correct.

## Beacon Information

\* - Required

Enter Beacon Hex  
Code

\*

Enter Beacon  
Checksum

Save

Cancel

User name: cmcc2@sarnet.dnd.ca (21667)


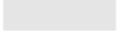
Your emergency contacts will receive the initial phone call from Search & Rescue should your beacon send a distress signal. It is therefore imperative that you keep your emergency contacts up to date.

To register a new contact, click the '[+ Add A Contact](#)'.

To View information about a registered contact, click on the contact's name.

To edit or update information about a registered contact, click the contacts name, then click the edit link.

## Edit Contact Information

 Beacon(s) assigned  
 No beacons assigned

[+ Add A Contact](#)

BRUCE WAYNE

Updated: 26 September, 2012

BRUCE WAYNE

Updated: 26 September, 2012

CMCC DUTY OPERATOR

Updated: 26 September, 2012

Contact ..... CMCC DUTY OPERATOR [\[Edit\]](#)

Phone Numbers ..... **Work** (613) 392-2811

Contact For Beacon .....  
 2787840000FFBFF  
 278E6DA9B8FFBFF  
 2794F1203F81FE0



## Enter Contact Information

\* - Required

First Name .....	<input type="text"/>	*
Last Name .....	<input type="text"/>	*
First Language .....	<input type="text" value="--Select--"/>	*
Company .....	<input type="text"/>	
Address 1 .....	<input type="text"/>	
Address 2 .....	<input type="text"/>	
City .....	<input type="text"/>	
Country .....	<input type="text" value="--Select--"/>	
Province/State .....	<input type="text" value="--Select--"/>	
Postal Code .....	<input type="text"/>	
Email .....	<input type="text"/>	
Relationship .....	<input type="text" value="--Select--"/>	
Comments .....	<input type="text"/>	

## Contact For Beacon

Beacons .....

- 2787840000FFBFF [\[Remove this beacon\]](#)
- 278E6DA9B8FFBFF [\[Remove this beacon\]](#)
- 2794F1203F81FE0 [\[Remove this beacon\]](#)

Contact For Beacon .....

Save

## Contact Number

**NOTE** Enter your contact numbers in the order you wish to be contacted.  
I.E. first number on the list will be called first, second on the list will be contacted second, etc.

Phone Type .....	<input type="text" value="--Select--"/>	*
Country .....	<input type="text" value="--Select--"/>	*
Area Code .....	<input type="text"/>	*
Phone Number .....	<input type="text"/>	*
Extension .....	<input type="text"/>	(Maximum 6 digits)
Phone Type .....	<input type="text" value="--Select--"/>	
Country .....	<input type="text" value="--Select--"/>	
Area Code .....	<input type="text"/>	
Phone Number .....	<input type="text"/>	
Extension .....	<input type="text"/>	(Maximum 6 digits)

# Aircraft Information

[PROFILE](#)[BEACON](#)[CONTACTS](#)[AIRCRAFT](#)[VESSEL](#)[LAND](#)[LOGOUT](#)

User name: cmcc2@sarnet.dnd.ca (21667)

If you are registering an Emergency Locator Transmitter (ELT), you must have a registered aircraft to place this beacon on. This will give Search & Rescue some sort of indication of the type of aircraft that may be in distress.

To register a new aircraft, click on the '[+ Add Aircraft](#)' link and follow the instructions given.

To view registered aircraft information, click on the aircraft tail number.

To edit information on registered aircraft, click on the tail number then click the edit link and follow the instructions given.

\*\*\* Please add a minimum of two emergency contacts to your registration. Click on CONTACTS tab to add your emergency contacts. Once added, please attach them to the specific beacon that they correspond to. \*\*\*\*

## Your Registered Aircraft

Beacon(s) assigned  
 No beacons assigned

[+ Add Aircraft](#)

C-IOUF

Updated: 26 September, 2012

Tail Number ..... C-IOUF [\[Edit\]](#)

Manufacturer ..... Cessna

Model ..... 172

Type ..... AEROPLANE

Beacons ..... 2787840000FFBFF



## Beacons

Beacons ..... 2787840000FFBFF [Remove Beacon](#)

Attach Beacon .....

## Edit Registered Aircraft Information

\* - Required

Aircraft Serial Number  \*

Tail Number  \*

Manufacturer  \*

Model  \*

Type  \*

Home Airport  \*

Propulsion Type  \*

Engines

Primary Colour  \*

Secondary Colour  \*

Features

Radio Equipment

Number of Crew  \*

Number of Seats  \*

Comments





# Vessel Information

[PROFILE](#)
[BEACON](#)
[CONTACTS](#)
[AIRCRAFT](#)
[VESSEL](#)
[LAND](#)
[LOGOUT](#)

User name: cmcc2@sarnet.dnd.ca (21667)

If you are registering an Emergency Position Indicating Radio Beacon (EPIRB), you must have a registered vessel to place this beacon on. This will give Search & Rescue some sort of indication of the type of vessel that may be in distress.

To register a new vessel, click on the '+ Add Vessel' link.

To view registered vessel information, click on the vessel name.

To edit information on a registered vessel, click on the vessel name then click the edit link and follow the instructions given.

\*\*\* Please add a minimum of two emergency contacts to your registration. Click on CONTACTS tab to add your emergency contacts. Once added, please attach them to the specific beacon that they correspond to. \*\*\*

## Your Registered Vessels

Beacon(s) assigned  
 No beacons assigned

[+ Add Vessel](#)

**FV KEN DRYDEN** Updated: 26 September, 2012

Vessel Name ..... FV KEN DRYDEN [\[Edit\]](#)  
 Call Sign ..... HABS  
 Vessel Type ..... FISHING - COMMERCIAL  
 MMSI Number ..... 316000000  
 Beacons ..... 2794F1203F81FE0

# Vessel Information

\* - Required

Vessel Name ..... FV KEN DRYDEN \*  
 Call Sign ..... HABS \*  
 Registration Number ..... 395679 \*  
 Home Harbour ..... TRENTON \*  
 Number of Crew Members ..... 8 \*  
 Hull Colour ..... Black \*  
 Sail Colour .....   
 Structure Colour ..... White \*  
 Hull Type ..... FIBERGLASS - MONOHULL \*  
 Vessel Type ..... FISHING - COMMERCIAL \*  
 Propulsion Type ..... Propulsion Method  
 Power ..... Inboard  
 --Select-- ..... --Select--  
 --Select-- ..... --Select--  
 Special Features ..... SURVIVAL SUITS/LIFE RAFT/STANDARD KIT  
 Length (meters) ..... 27.00 \*  
 Tonnage ..... 15  
 Radio Equipment ..... VHF/DSC -LORAN/ CAPTAIN CELL# 613-799-0000  
 Inmarsat Number ..... 8814567890  
 MMSI Number ..... 316000000  
 Comments .....

# Personal Activity Information

[PROFILE](#)[BEACON](#)[CONTACTS](#)[AIRCRAFT](#)[VESSEL](#)[LAND](#)[LOGOUT](#)

User name: cmcc2@sarnet.dnd.ca (21667)

If you are registering an Personnel Locator Beacon (PLB), it is recommended that you indicate situations where you will be using your PLB. This will give Search & Rescue some sort of indication of the situation you may be in should they receive a distress signal. This can be done by registering your PLB Activity.



To register a new activity, click on the '[+ Add PLB Activity](#)' link and follow the instructions given.

To view registered PLB activity information, click on the Activity Name.

To edit information on registered activity, click on the activity name then click the edit link and follow the instructions given.

\*\*\* Please add a minimum of two emergency contacts to your registration. Click on CONTACTS tab to add your emergency contacts. Once added, please attach them to the specific beacon that they correspond to. \*\*\*\*

## Your Registered Land Activity

 Beacon(s) assigned  
 No beacons assigned

[+ Add PLB Activity](#)

TESTING

Updated: 26 September, 2012

CMCC

Updated: 27 September, 2012

Nickname / Activity..... CMCC [[Edit](#)]

Additional Information

This beacon is held in CMCC and is made available for sign out by CMCC and JRCC Trenton members. It is occasionally used for testing. Either way, the CMCC Operator will have further information and trip plans.

Beacons..... 278E6DA9B8FFBFF



## Beacons

Beacons ..... 278E6DA9B8FFBFF [\[Remove\]](#)

Attach Beacon .....

Save

## How do you use your PLB?

\* - Required

Nickname / Activity for this PLB .....  \*

### Activities

Land	Sea	Air
Hiking ..... <input type="checkbox"/>	Boating ..... <input type="checkbox"/>	Handgliding ..... <input type="checkbox"/>
Fishing ..... <input type="checkbox"/>	Kayaking ..... <input type="checkbox"/>	Flying ..... <input type="checkbox"/>
Mountain Climbing ..... <input type="checkbox"/>	Fishing ..... <input type="checkbox"/>	UltraLight ..... <input type="checkbox"/>
Hunting ..... <input type="checkbox"/>	Sailing ..... <input type="checkbox"/>	Details ..... <input type="text"/>
Details ..... <input type="text"/>	Details ..... <input type="text"/>	

### Additional Information

This beacon is held in CMCC and is made available for sign out by CMCC and JRCC Trenton members. It is occasionally used for testing. It is the CMCC's responsibility to...





## Registered Contacts

User name: cmcc2@sarnet.dnd.ca (21667)

Contact information updated  
Complete



Your emergency contacts will receive the initial phone call from Search & Rescue should your beacon send a distress signal. It is therefore imperative that you keep your emergency contacts up to date.

To register a new contact, click the '[+ Add A Contact](#)'.

To View information about a registered contact, click on the contact's name.

To edit or update information about a registered contact, click the contacts name, then click the edit link.

### Edit Contact Information

 Beacon(s) assigned  
 No beacons assigned

[+ Add A Contact](#)

**BRUCE WAYNE** Updated: 26 September, 2012

Contact ..... **BRUCE WAYNE** [\[Edit\]](#)

Phone Numbers ..... **Cellular (613) 444-5555**



## Register Contact For Owner

% - Wildcard

### Owner Information

Search by Owner  
Name

Search by Company  
Name

Admin Notes Only

Click to check for  
noteswohlgemuthk(28-Sep-  
12)> Test



National Défense  
Defence nationale

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# CBR Activity

- ELT's with no 24 bit
- Unregistered ELT's with 24 bit
- Mismatch ELT's – Registered tail vs 24 Bit
- Location protocol – not \*FFBFF
- 4<sup>th</sup> digit miscode
- Mass mail out



# CBR Activity

- Mass emails
- Paper file verification
- Beacon replacement with updated TAC
- Data cleansing preparing for new website
- Ownership transfers
- Hex id pattern recognition



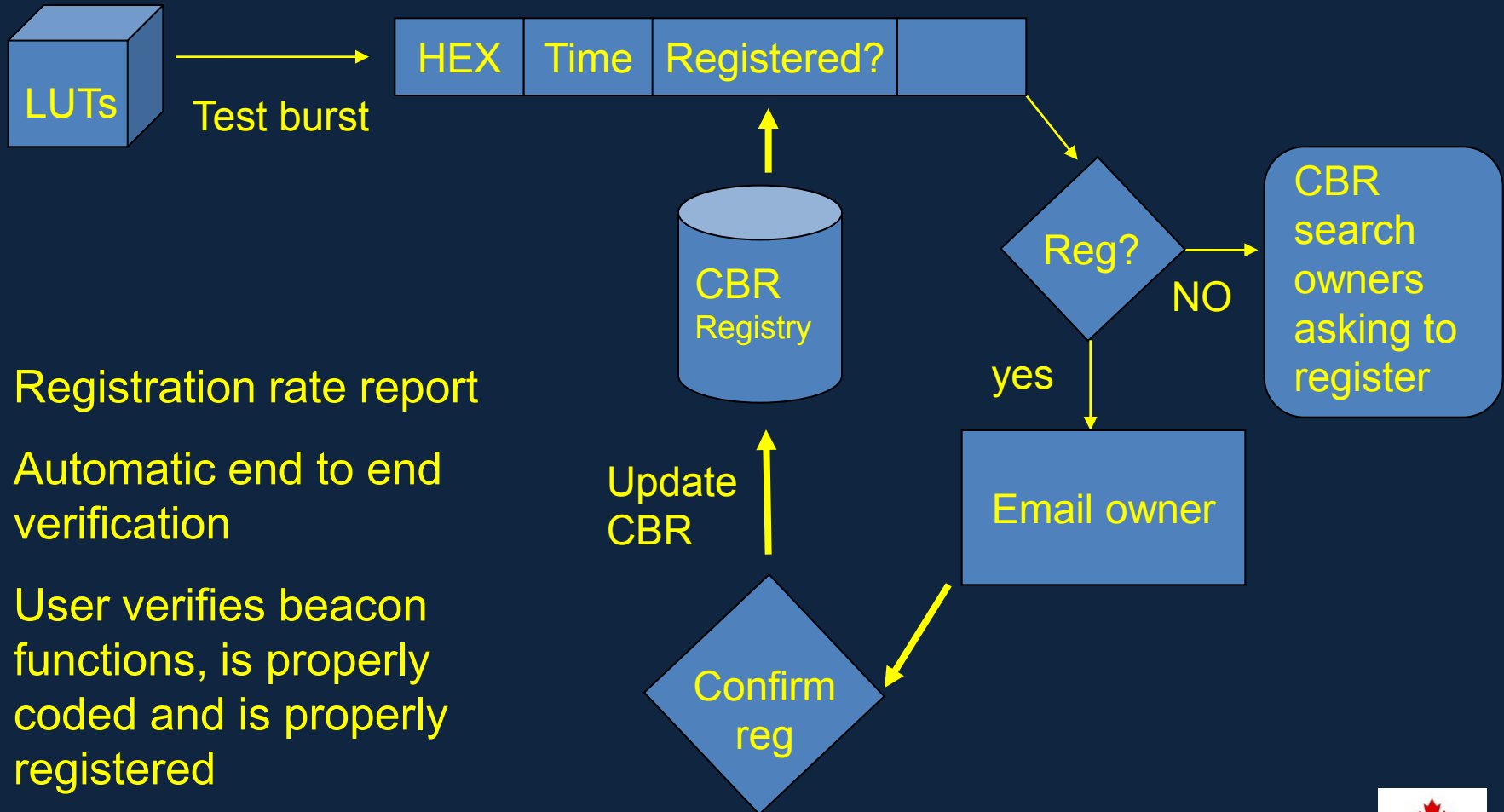
# CBR Activity

- CBR SOPs and training package
  - Acceptable practices (ie exchange of information)
  - Tracking of unregistered beacons
  - Pattern recognition
  - Peer verification of CBR inputs
  - Improving CBR service to *all of our* customers
- Improving stats





# ABRC – BMW 2011 slide: What we are proposing



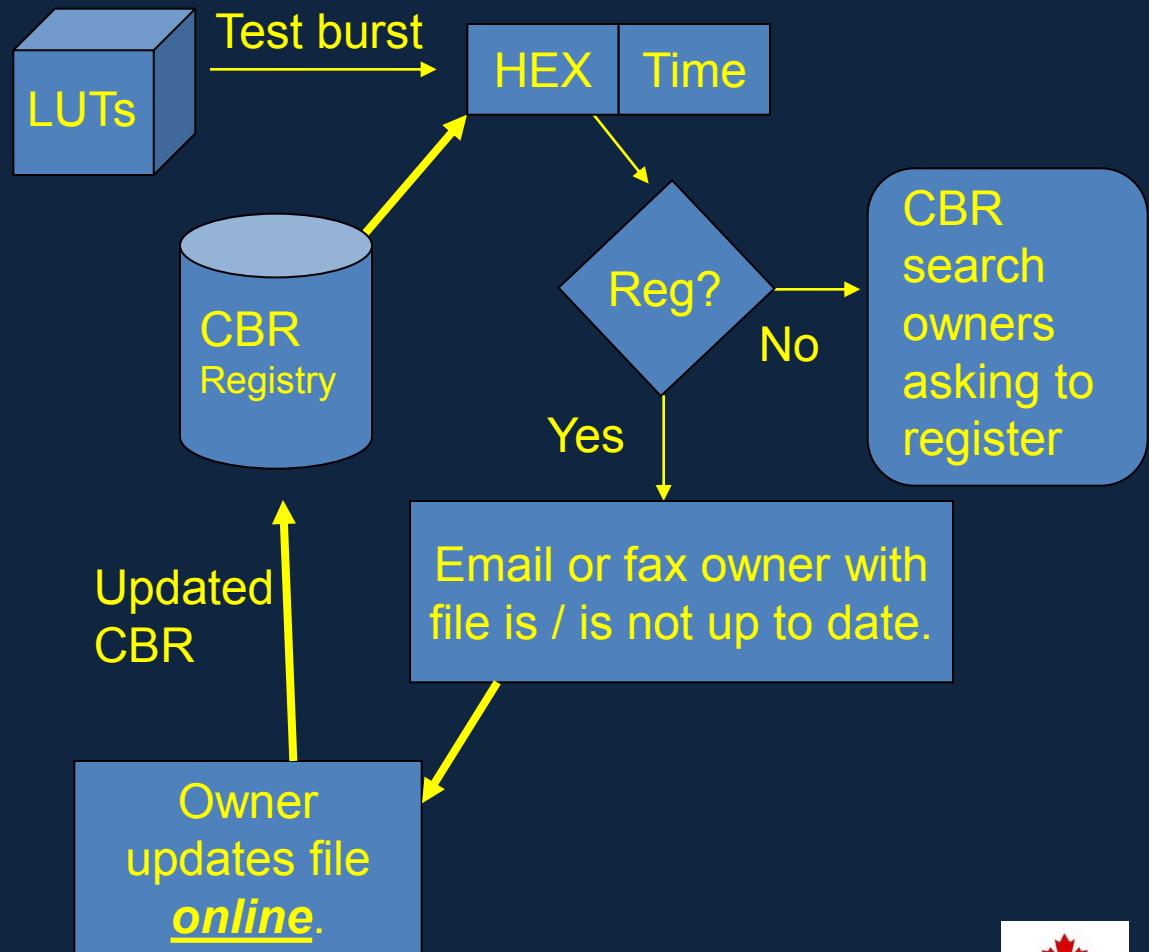
- Registration rate report
- Automatic end to end verification
- User verifies beacon functions, is properly coded and is properly registered
- User gains confidence



# ABRC – Beta phase Feb 12

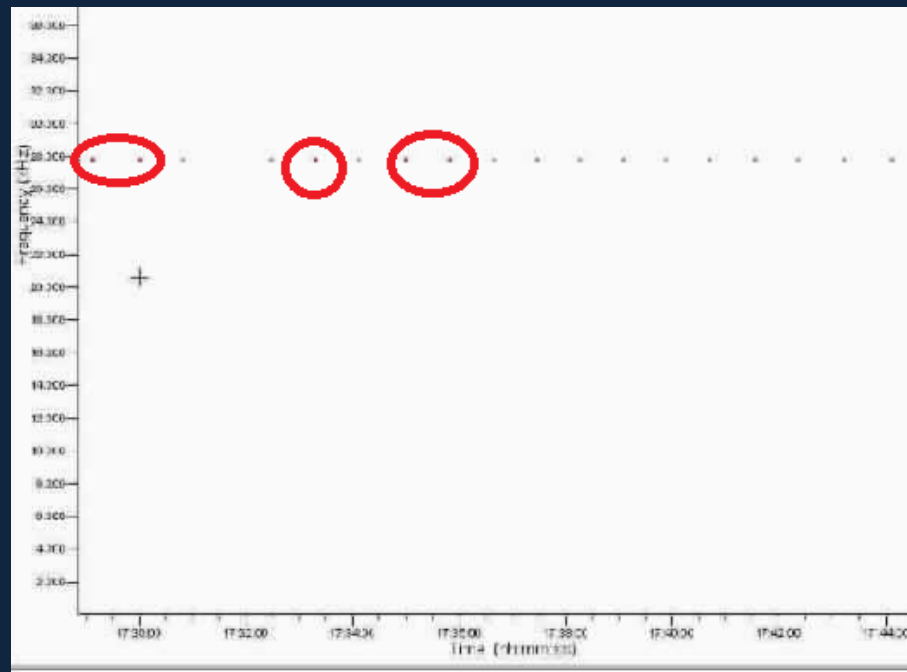
## Automatic Beacon Registry Checker

- Registration rate report
- Unregistered report
- Fax report
- Gives automatic end to end verification
- User verifies beacon functions, is properly coded, registered, and up to date
- User gains confidence
- Identifies outdated files
- Reduces workload



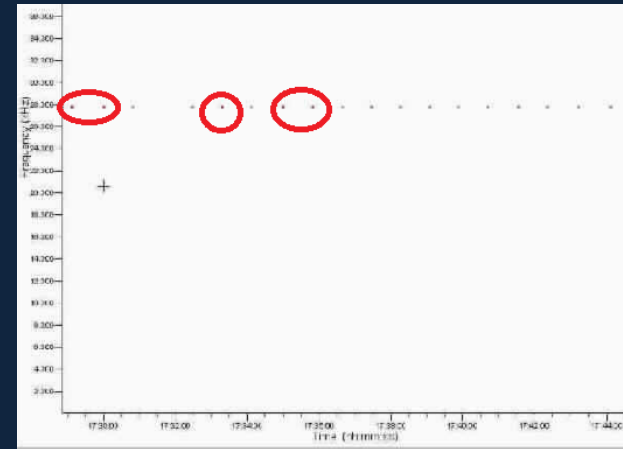
# Beacon Anomalies

- Switching between Test protocol and real code
  - ELT's (real and false alarm cases)
  - EPIRB (real distress and no distress – both with resources launched)



# Beacon Anomalies

- Switching between Test protocol and real code
  - ELT's (real and false alarm cases)
  - EPIRB (real distress and no distress – both with resources launched)
- Random not user initiated continuous inverted frame sync (ABRC now alerting = CMCC or CBR follow-up)



# What can Manufactures do?

- Support us so we can support YOUR customers!
- How?
  - Can you share the Canadian Hex ids (especially EPIRB and PLB) that you manufacture and their owners / contacts? If not, who are your vendors?
  - Vendors often have no information for owners and they call us instead. Once resellers educated, better registration.
  - Resellers do say to register the beacons!
- How can we help you?



# Contact Information

## Canadian Beacon Registry

c/o CMCC

8 Wing Trenton

PO Box 1000 Station Forces

Astra, Ontario K0K 3W0

p. 1-877-406-7671    f. 1-877-406-3298

cbr@sarnet.dnd.ca    www.cbr-rcb.ca

## Ms. Angie Cornish

CBR Manager

613-965-3716

cornisha@sarnet.dnd.ca

## CMCC:

Major Gilles Bourgoin

Officer in Charge

613-965-4148

cell: 613-391-1390

bourgoing@sarnet.dnd.ca

Captain Keith Wohlgemuth

Deputy Officer in Charge

613-965-7174

cell: 613-242-3836

wohlgemuthk@sarnet.dnd.ca



# Questions

