Incident History Database
IHDB

SAR Controllers Training 2013
19 – 21 March 2013

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What is the IHDB?

Incident History Database (IHDB)

- New accounts need to come through:
  - For AFRCC/AKRCC
    - Dan Conley, AFRCC SAR Duty Officer
      - Danny.Conley@tyndall.af.mil
  - For USCG
    - CDR Mark Turner, SARSAT Liaison Officer
      - Mark.W.Turner@uscg.mil

- Passwords can be reset by the USMCC Controller

Why did that beacon activate?

- Data Entries
  - Checked for consistency
  - Reported to NOAA Daily, Weekly, Quarterly and Annually
  - A significant part of annual report to Cospas-Sarsat
  - Used by USCG and Air Force for Reporting
  - Used in research continuously
    - Beacon reliability – Reported to Beacon Manufacturer's Workshop
    - Repeat Offenders data
    - Many, many, more

Parts of Record

View Record #330902

Primary/Defining Data

Site Number 59425
Beacon/Site ID 2DCE72056CFFBFF
Time First Detected 2013-02-21 23:16:00.000
Record Status Completed

Frequency Type 406 MHz
Site Status (when closed) Composite
SRRs Sent Feedback Report PACAREA AFRCC
SRR Name (when site closed) AFRCC [366S]

Feedback Information

USMCC Upward Site/Beacon ID Reference
If this incident is correlated with another, simply enter the master site number and click update

Case Number 13I0873

Time Case Started 2013-02-21 23:19:00.000

General Location California
Actual Latitude (no data)
Actual Longitude (no data)
How Actual Location Estimated

Incident Outcome
○ Distress ◉ Non-Distress ○ Ceased/Undetermined ○ Linked Site ○ (Unassigned)

Incident Type
○ Aviation ○ Maritime ◉ Terrestrial ○ Other or Unknown

Was SARSAT Data used in the resolution of this case?
○ Yes - Only Notification ◉ Yes - First Notification ○ Yes - Supporting Data ○ Not Involved ○ (Unassigned)

Number Rescued
Number In Distress

Examples of Operational False Alerts
Reason Activated False Alert - Beacon Mishandling: Usage

Activation Comment

Boat Hours
Cutter Hours
CAP Ground Hours

Helo Hours
Fixed Wing Hours
CAP Air Hours

Additional Remarks PLB WAS LOCATED AND SILENCED BY REGISTERED OWNER BEACON WAS ACTIVATED DUE TO ACCIDENTAL ACTIVATION Result: NON-DISTRESS Location: PALO ALTO, CALIFORNIA Current beacon registration is incorrect. A POC for this beacon's registration (ED) can be reached at 210-710-8148.

Additional Remarks PLB WAS LOCATED AND SILENCED BY REGISTERED OWNER BEACON WAS ACTIVATED DUE TO ACCIDENTAL ACTIVATION Result: NON-DISTRESS Location: PALO ALTO, CALIFORNIA Current beacon registration is incorrect. A POC for this beacon's registration (ED) can be reached at 210-710-8148.

Beacon Information

General Type PLB
Protocol Type PLB SERIAL (STANDARD)
Country Code USA
Beacon Activation Type
Location Protocol Beacon Yes No

Manufacturer
Beacon Model
Homing Device 121.5 MHz
Beacon Registered Yes No

Site Data

First Alert ALat 33-30-29N
First Alert ALon 140-10-41W
First Alert ASRR PACAREA [366F]

First Encoded Lat 37-30-00N
First Encoded Lon 122-15-00W
Time First Encoded 2013-02-21 23:18:00.000
Time First Encoded U
Encoded SRR AFRCC [366S]

Site Opened 2013-02-21 23:18:00.000
First Composite Time 2013-02-21 23:40:00.000

Frequency 406.0367
Number of Passes 4

First Alert BLat 37-25-59N
First Alert BLon 122-09-25W
First Alert BSRR AFRCC [366S]

First Composite Lat 37-25-59N
First Composite Lon 122-08-31W
Last Composite Lat 37-25-59N
Last Composite Lon 122-08-31W
Composite SRR PACAREA [366F]

Site Closed 2013-02-22 02:11:00.000
Last Detected 2013-02-21 23:36:00.000

Time First Geo 2013-02-21 23:16:00.000
Time First Leo 2013-02-21 23:18:00.000

Beacon Special Status Normal

Incident Data Last Updated 2013-02-22 02:24:29.143

***** For NOAA System Managers and Data Managers Use Only *****

Public Release Info

PREV DONE NEXT

USMCC INCIDENT HISTORY DATABASE (IHDB) SYSTEM

View Record #329699

Primary/Defining Data

Site Number 55263
Beacon/Site ID 2DD42AC9BF81FE0
Time First Detected 2013-01-01 17:15:00.000
Record Status Completed

Frequency Type 406 MHz
Site Status (when closed) Position Conflict
SRRs Sent Feedback Report CGD01 CGD07 CGD05
SRR Name (when site closed) CGD05 [366N]

Feedback Information

USMCC Upward Site/Beacon ID Reference
If this incident is correlated with another, simply enter the master site number and click update

Case Number 623857

Time Case Started 2013-01-01 17:15:00.000

General Location South Carolina
Actual Latitude (no data)
Actual Longitude (no data)
How Actual Location Estimated

Incident Outcome
○ Distress ◉ Non-Distress ○ Ceased/Undetermined ○ Linked Site ○ (Unassigned)

Incident Type
○ Aviation ◉ Maritime ○ Terrestrial ○ Other or Unknown

Registration Information Usage
○ Not Used ○ Contributed to case resolution ◉ Primary Means to resolve case ○ (Unassigned)

Was SARSAT Data used in the resolution of this case?
◉ Yes - Only Notification ○ Yes - First Notification ○ Yes - Supporting Data ○ Not Involved ○ (Unassigned)

***Registration Accuracy**
Owner Information
◉ Accurate ○ Not Accurate ○ Unverified
Emergency Contact Information
◉ Accurate ○ Not Accurate ○ Unverified
Vessel/Aircraft/Usage Information
◉ Accurate ○ Not Accurate ○ Unverified

Number Rescued 0
Number In Distress 0

Examples of Operational False Alerts

Reason Activated False Alert - Beacon Mishandling: Usage

Activation Comment

Boat Hours 0.0
Cutter Hours 0.0
CAP Ground Hours 0.0

Helo Hours 0.0
Fixed Wing Hours 0.0
CAP Air Hours 0.0

Additional Remarks

D7CC received a 406MHZ EPIRB registered to the F/V CRYSTAL C with no positional information. D7CC contacted the registered owner who confirmed his F/V was safely moored at Little River Fish Camp. Then he stated he had just destroyed the beacon with a sledgehammer because he couldn't get it to deactivate after being removed from it's bracket. Beacon later composited with a 50/50 split with D7 in the buffer for the "A" solution, which plotted IVO where the beacon had been destroyed later compositing on shore. The registered owner was unable to confirm the beacon I.D. due the beacon being destroyed. D7 will monitored the site with no further updates and contacted the owner once more to attempt to confirm the beacon was the same. The owner then confirmed the beacon ID. Case closed.

EXAMPLES OF OPERATIONAL FALSE ALERTS

BEACON MISHANDLING

False Alert - Mishandling - Installation

- Exposed to sea action or ship's work, beacon activated by sea spray or wave, crewman bumped beacon, equipment struck beacon, beacon installed upside down, improperly placing beacon into bracket

False Alert - Mishandling - Testing

- Failure to follow proper testing procedures, negligence, poor beacon testing instructions, aircraft in situ test, left beacon in "on" position too long. Inspection by authorised inspector: accidental activation during vessel equipment inspection.
- Repair by owner (usually unauthorised) or authorised facility: causing damage to beacon, activation during battery change, changing of hydrostatic release while servicing beacon.
- Improper removal from bracket: inspection, test, cleaning, or safe keeping without switching off.
- Beacon shipped to / by retailer, owner, repair facility (in transit): shipped while armed, improperly packed, improperly marked, rough handling.
- Maintenance of craft: mechanical, electronic, wash down, painting, winterization.
- Beacon stored improperly: stored while armed.

False Alert - Mishandling - Usage

- Illegal activation: hoax, vandalism, theft.
- Accidental activation: owner or SAR authorities report accidental activation and no further information.
- Demonstration / test not co-ordinated with Cospas-Sarsat / SAR authorities: training, exercise, product demonstration using on position instead of test.

False Alert - Mishandling - Disposal

- Beacon sold with craft for scrap, discarded as trash, abandoned.

BEACON MALFUNCTION

False Alert - Malfunction - Switch

- Faulty activation switch, i.e., gravity activated, magnetic, mercury, or crash.
- Hard landing, excessive craft vibration.

False Alert - Malfunction - Water Intrusion

- Water leakage due to manufacturing defect, cracked casing, faulty seal.

EXAMPLES OF OPERATIONAL FALSE ALERTS

- Hard landing, excessive craft vibration.

False Alert - Malfunction - Water Intrusion

- Water leakage due to manufacturing defect, cracked casing, faulty seal.

False Alert - Malfunction - Test

- Transmitting distress signal while in test position
- Transmitted non-inverted frame sync while in test mode (406 MHz).

False Alert - Malfunction - Electronics

- Electronics malfunction
- Non-GPS electronics malfunction.

MOUNTING FAILURE

FalseAlert-Mounting-Bracket

- Strap or bracket failure
- Strap failure, mounting bolts sheared, retainer pin broken, beacon fell out of bracket.

FalseAlert-Mounting-Release

- Hydrostatic release failure.

FalseAlert-Mounting-Magnet

- Faulty mounting magnet for externally mounted ELT
- Switch magnets not effective.

ENVIRONMENTAL CONDITIONS

False Alert - Environmental Conditions

- Extreme weather conditions
- Hurricane / cyclone conditions, vessel knocked down, aircraft overturned, heavy seas, ice build-up.

UNKNOWN

False Alert – Reasons Unknown

- (Confirmed Beacon Activations)
- No feedback received on why beacon activated
- Investigation into beacon activation cause was inconclusive

IHDB False Alert Reason

- Beacon Mishandling
- Beacon Malfunction
- Mounting Failure
- Environmental Conditions
- Unknown

IHDB False Alert Reason

– False Alert – Mishandling – Installation

- Exposed to sea action or ship's work, equipment struck beacon, improperly placing beacon in bracket

IHDB False Alert Reason

- Beacon Mishandling
  - False Alert – Mishandling – Installation
  - False Alert – Mishandling – Testing
    - Failure to follow proper testing procedures
    - Repair by owner or service center causing activation.
    - Improper removal from bracket while testing, cleaning.
    - Beacon shipped while armed and activated
    - Beacon stored improperly

IHDB False Alert Reason

- Beacon Mishandling
  - False Alert – Mishandling – Installation
  - False Alert – Mishandling – Testing
  - False Alert – Usage
    - Illegal activation: hoax, vandalism, theft
    - Accidental activation: reported, NFI
    - Demonstrated / test not coordinated

IHDB False Alert Reason

- Beacon Mishandling
  - False Alert – Mishandling – Installation
  - False Alert – Mishandling – Testing
  - False Alert – Mishandling – Usage
  - False Alert – Mishandling – Disposal
    - Beacon discarded as trash, abandoned

IHDB False Alert Reason

- Beacon Malfunction
  - False Alert – Malfunction – Switch
    - Switch broken

IHDB False Alert Reason

- Beacon Malfunction
  - False Alert – Malfunction – Switch
  - False Alert – Malfunction – Water Intrusion
    - Water leakage due to manufacturing defect, cracked casing, faulty seal.
    - **Not** exterior of beacon getting wet

IHDB False Alert Reason

- Beacon Malfunction
  - False Alert – Malfunction – Switch
  - False Alert – Malfunction – Water Intrusion
  - False Alert – Malfunction – Test
    - Transmitted non-inverted frame
    - Transmitting distress signal while in test position

IHDB False Alert Reason

- Beacon Malfunction
  - False Alert – Malfunction – Switch
  - False Alert – Malfunction – Water Intrusion
  - False Alert – Malfunction – Test
  - False Alert – Malfunction – Electronics
    - Electronics malfunction
    - Non-GPS electronics malfunction

IHDB False Alert Reason

- Mounting Failure

67% Of False Alerts Mounting Failure

IHDB False Alert Reason

- Mounting Failure
  - False Alert – Mounting – Bracket
    - Strap or bracket failure
    - Beacon fell out of bracket

**Yarbrough study in 2008 found 67% Of False Alerts Mounting Failure

IHDB False Alert Reason

- Mounting Failure
  - False Alert – Mounting – Bracket
  - False Alert – Mounting – Mounting Release
    - Hydrostatic release failure (?)

**Yarbrough study in 2008 found 67% Of False Alerts Mounting Failure

IHDB False Alert Reason

- Mounting Failure
  - False Alert – Mounting – Bracket
  - False Alert – Mounting – Mounting Release
  - False Alert – Mounting – Magnet
    - Switch magnet not effective or missing

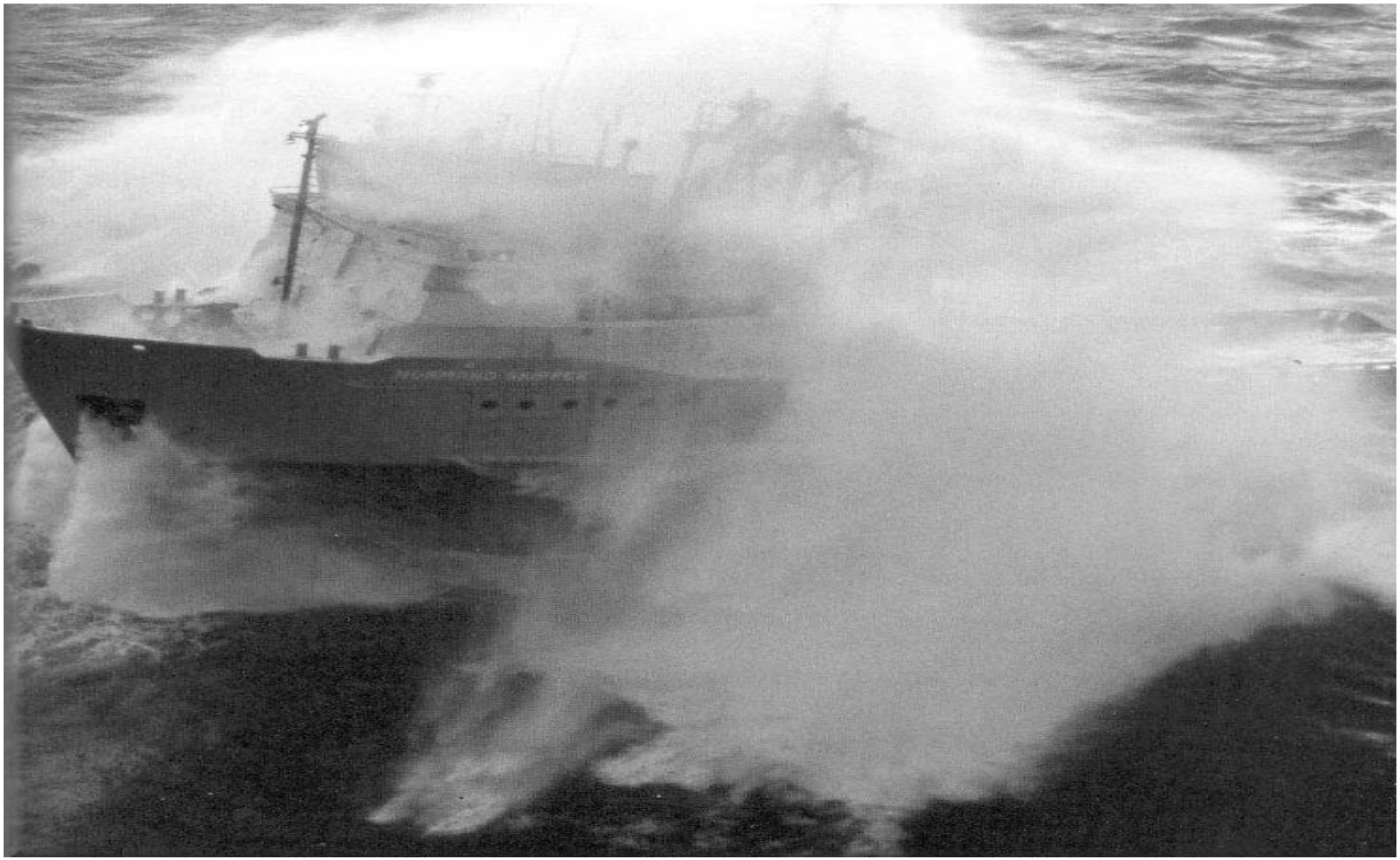
**Yarbrough study in 2008 found 67% Of False Alerts Mounting Failure

IHDB False Alert Reason

- Environment Conditions
  - False Alert – environmental Conditions
    - Extreme Weather conditions
    - Hurricane / cyclone conditions, vsl knocked down, heavy seas, ice build-up

False Alert ELT – environmental Conditions - YES

False Alert EPIRB– environmental Conditions - NO



IHDB False Alert Reason

- Unknown
  - False Alert – Reason Unknown
    - Confirmed Beacon False Alert
    - No feedback on why activated
    - Investigation in to beacon activation cause was inconclusive