



EPIRBs and False Alerts

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CDR Mark Turner
USCG
Coast Guard Liaison to SARSAT





EPIRB False Alerts Study

Study was research project by:

Larry Yarbrough,

USCG District 7 (dpi)

Newton Anderson,

USCG Auxiliary



Who cares?

- **\$3.6** million in A/C time and fuel on 406 MHz EPIRB false alerts in 2007
- SAR crews put at risk
- SAR assets less available for actual distress
- Fatigues and dulls the SAR system



False Alerts

- 1 May - 31 Dec 2007
- USMCC received **1577** 406 MHz EPIRB alerts
- 5% (83) were Distress Alerts
- **1494** False Alerts (non-distress and ceased/undetermined alerts)
- **15%** - (232) Were False Alerts with enough data collected to develop evidence of circumstances causing alert transmission



Operator Induced False Alerts

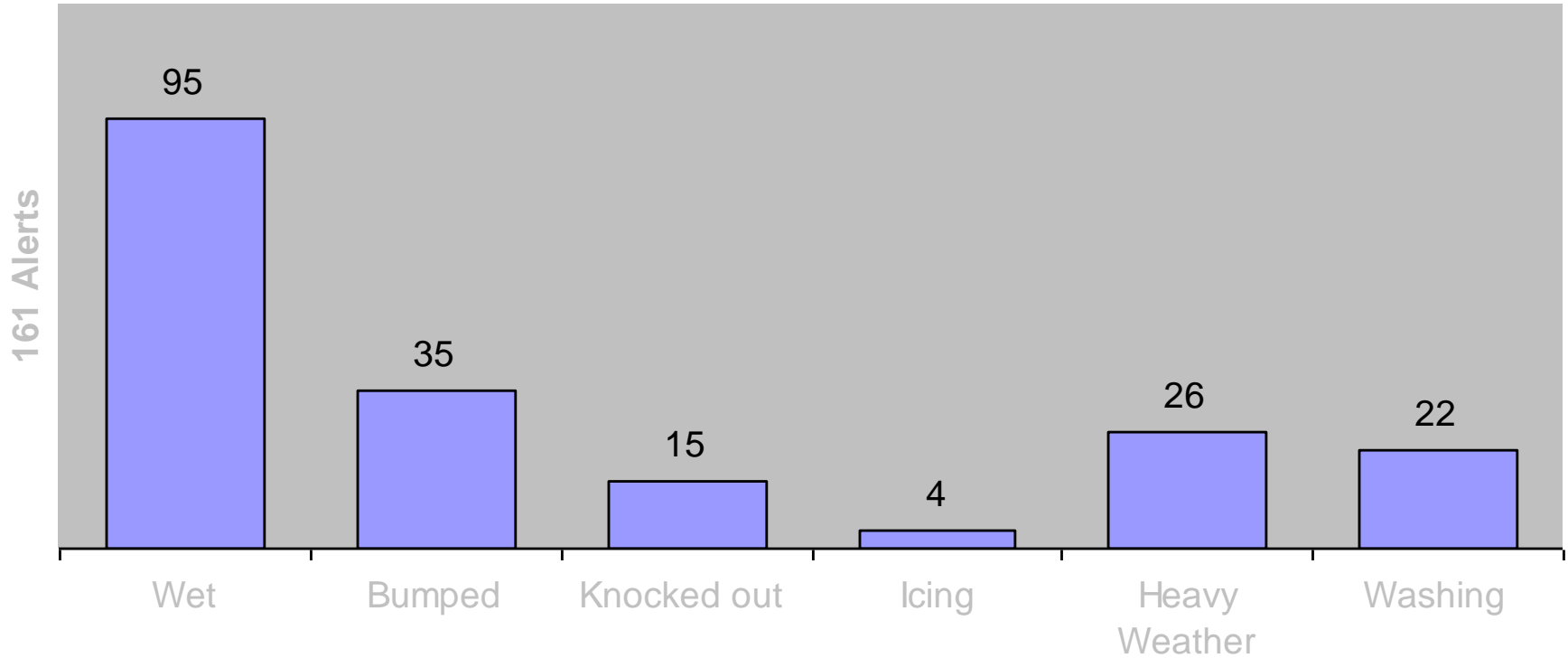
- **10%** (24) were attributed to **Testing** without following manufactures instructions, or other deliberate non-emergency activations
- **6%** (13) were EPIRBs deliberately taken out of bracket and naked of any control of the wet sensor

Bracket Water Testing





False Alert and EPIRB in Bracket





EPIRB False Alerts

69% (161) Caused by Failure of “The bracket decoupling function” to control the EPIRB

- Observed with Category I and II
- Manufactures, makes and models in the US registration data base were proportionally represented by False Alerts



Naked EPIRBs

- Recreational mariners are buying EPIRBs and putting them in their “ditch bags” without brackets that provide protection for the wet activation circuit.
- Professional mariners removing EPIRBs from bracket for safe keeping.



Feedback

- Improve feedback mechanism to Beacon manufactures that provides as much detail as possible about:
 - exactly which Beacons have generated a False Alert. And
 - circumstances surrounding the event.
 - Consider providing IHDB access, or a limited and redacted version that excludes protected personal data.



Why do the study?

- 96% 406 MHz EPIRB Alerts are false
- 85% Resolved by RCCs with registration and good detective work
- Projected increase in EPIRB population will bring increase in number of false alerts
- MEOSAR system will bring additional false alerts (no more unlocated).



False Alerts

False Alerts are a drain on the health of the EPIRB Distress Alerting System

There is no one cause of EPIRB False Alerts, and there is no one fix for the problem However ...

Several small corrective steps will make a positive difference in this problem



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- Questions