Search and Rescue
Satellite-Aided Tracking System
False Alerts, Registration and SARSAT Outreach Analysis

SARSAT Beacon Manufacturers Workshop 2019
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Continuing the Push for Awareness

• This is a continuing effort to decrease overall false alerts throughout the SARSAT system
• The launching of MEOSAT has significantly improved COSPAS-SARSAT coverage…and thus significantly increased non-distress alerts that were missed in the past
• Currently, ELT’s represent the largest portion of false alerts and non-distress beacons.
Facts concerning False Alerts

• False Alerts:
  - Challenges limited SAR resources and funds
  - Frustrate SAR personnel
  - Adversely affect SAR personnel's ability to respond to actual distress
  - Erodes confidence in alerts
  - Each activation is treated as a distress by the appropriate RCC until it can be confirmed as “distress” or “non-distress.”
  - The USMCC detected 8,150 ELT non-distress activations in 2018
    143 of ELT activations were due to distress (1.7%)
  - The USMCC detected 4,331 EPIRB non-distress activations in 2018
    95 of EPIRB activations were due to distress (2.1%)
  - The USMCC Detected 1453 PLB non-distress activations in 2018
    221 of PLB activations were due to distress (15.2%)
CONUS distribution of False Alerts
October 2018 to August 2019

Many False Alerts are located around regional and major airports across the nation.
<table>
<thead>
<tr>
<th>Type</th>
<th>% of Total Non Distress alerts</th>
<th>% of Total Beacons Registered that are</th>
<th>2018 /Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTs</td>
<td>58%</td>
<td>ELTs</td>
<td>18.2%</td>
</tr>
<tr>
<td>EPIRBs</td>
<td>31%</td>
<td>EPIRBs</td>
<td>40.4%</td>
</tr>
<tr>
<td>PLBs</td>
<td>10%</td>
<td>PLBs</td>
<td>41.2%</td>
</tr>
</tbody>
</table>
## Overall Non-Distress Activation Difference 2017-2018

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELTs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017:</td>
<td>7285</td>
<td></td>
<td>+12%</td>
</tr>
<tr>
<td>2018:</td>
<td>8150</td>
<td></td>
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</tbody>
</table>

| **EPIRBs** |      |      |        |
| 2017:     | 4521 |      | -4%    |
| 2018:     | 4331 |      |        |

| **PLBs** |      |      |        |
| 2017:    | 1529 |      | -5%    |
| 2018:    | 1453 |      |        |
Aviation Team of Experts (ATE)

Inspired by the 2008 EPIRB initiative of CAPT. L.T. Yarborough USCG(RET)

• Chartered by LT Nate Gillman (NOAA)
• Have had six meetings since May 2018
• Includes Government and Industry partners
• Primary goal is to increase awareness and collaborate to decrease the number of false alerts along with improving registration of ELTs.

**Action Items for the past year**

• Created Posters and Flyers for distribution to the public
• Continued to work with manufacturers to realize new avenues for awareness
• Continued working with the FAA to update regulations concerning beacons
• Align information across the spectrum to ensure an accurate explanation of the COSPAS-SARSAT system
• Media outreach online, in print and at events

9/17/2019
Reasons for ELT False Alerts

• Improper testing due to confusion or ambiguity in the instructions of ELTs

• Inadequate understanding of the regulations concerning ELT requirements and testing

• Lack of cohesion in the Code of Federal Regulations concerning ELT’s and 406MHz Beacons (14 CFR 91.207 / 47 CFR 87.199)

• Lack of awareness of 406MHz ELT testing requirements and risks

• Improper disposal of ELT’s

• Invalid or missing registration information
Outreach Events 2018/19

• EAA AirVenture, Oshkosh WI
• Miami Boat Show
• Beacon Manufacturers Workshop
• Social Media outreach with #406day
• Media interaction via interviews and articles
• Aviation Team of Experts
• AOPA Fly-in
Importance of Registration

Register online at beaconregistration.noaa.gov

• Digital data transmitted by beacon provides nationality and type of beacon and aids in tracking.

• Emergency contact information and home port are listed in registration

• Tail number and identifying information can be added to registration

• Registration can include information about the owner/operator, specifics on aircraft or vessel, capability of the beacon and/or medical concerns of the owner. This information allows for a more coordinated, timely and prepared search and rescue response by SAR authorities.

• Often, false alerts are resolved prior to dispatching limited search and rescue resources, protecting those valuable resources for actual cases, saving tax dollars, and protecting search and rescue crews.
Discussion/Questions?
Contact Information

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