

# Search and Rescue Satellite-Aided Tracking System



S A R S A T





# SARSAT Beacon Manufacturers Workshop 2019 LT Aaron D Colohan NOAA SARSAT Operations Officer









## 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.





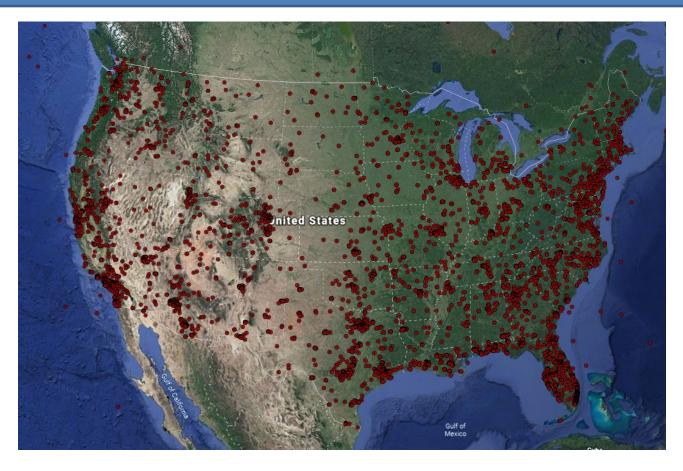
## Facts concerning False Alerts



- 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

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# False Alert Rate by Beacon Type vs. Registrations by Beacon Type 2018



ELTs	2018 /Trend
% of Total Non Distress alerts	58%
% of Total Beacons Registered that are ELTs	18.2%
EPIRBs	
% of Total Non Distress alerts	31%
% of Total Beacons Registered that are EPIRBs	40.4%
PLBs	
% of Total Non Distress alerts	10%
% of Total Beacons Registered that are PLBs	41.2%

# Overall Non-Distress Activation Difference 2017-2018



#### **ELTs**

2017: 7285

2018: 8150

+12%

#### **EPIRBs**

2017: 4521

2018: 4331

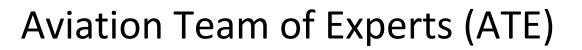
%

#### **PLBs**

2017: 1529

2018: 1453

5%





#### 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

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## 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

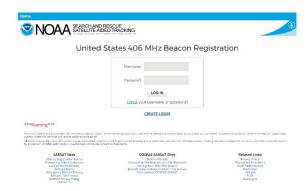
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#### **Importance of Registration**



#### Register online at <u>beaconregistration.noaa.gov</u>

- 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?

9/16/2019

#### **Contact Information**



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