

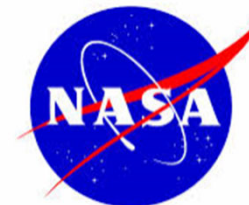


# False Alerts and SARSAT Outreach Analysis

SARSAT Beacon Manufacturers  
Workshop 2024

Allan Knox

SARSAT Program Analyst





# Background – False Alerts

- Approximately only 2% of all beacon activations in the US are confirmed to be distress alerts
- SARSAT outreach efforts focus on:
  - Decreasing false alerts
  - Increasing beacon registrations
  - Increasing public awareness of the system
- Every beacon activation must be treated as a distress
- MEOSAR has significantly improved coverage and increased non-distress alerts detected
- ELT's represent the largest portion of false alerts
- What's the issue? False alerts:
  - Waste SAR resources and funds
  - Frustrate SAR personnel
  - Adversely affect SAR personnel's ability to respond to actual distress

**SARSAT**  
SEARCH & RESCUE SATELLITE-AIDED TRACKING  
SAVING LIVES SINCE 1982

**HELP PREVENT 406 MHZ  
DISTRESS BEACON FALSE ALERTS**  
98% OF ALL 406 ELT, EPIRB AND PLB BEACON ACTIVATIONS ARE FALSE ALARMS  
FOLLOW THE POINTS BELOW TO REDUCE NEEDLESS  
RISK TO SEARCH AND RESCUE CREWS

**REGISTER YOUR  
BEACON**  
THAT IS THE FASTEST AND  
SIMPLEST WAY FOR SAR  
AUTHORITIES TO RESPOND TO A  
DISTRESS OR CONFIRM A FALSE  
ALERT

**FOLLOW  
MANUFACTURER'S  
INSTRUCTIONS**  
KNOW HOW YOUR 406 BEACON  
WORKS. MOST FALSE ALERTS  
OCCUR DURING TESTING, HANDLING,  
REPAIR AND INSTALLATION

**USE PROPER  
DISPOSAL METHODS**  
REMOVE AND RECYCLE THE  
BATTERY WHEN DECOMMISSIONING  
YOUR BEACON TO PREVENT  
ACCIDENTAL ACTIVATION

IF A BEACON IS ACCIDENTALLY ACTIVATED  
PLEASE CALL:  
U.S. COAST GUARD: 1-888-408-USCG (8724)  
U.S. AIR FORCE: 1-800-351-3051

www.sarsat.noaa.gov

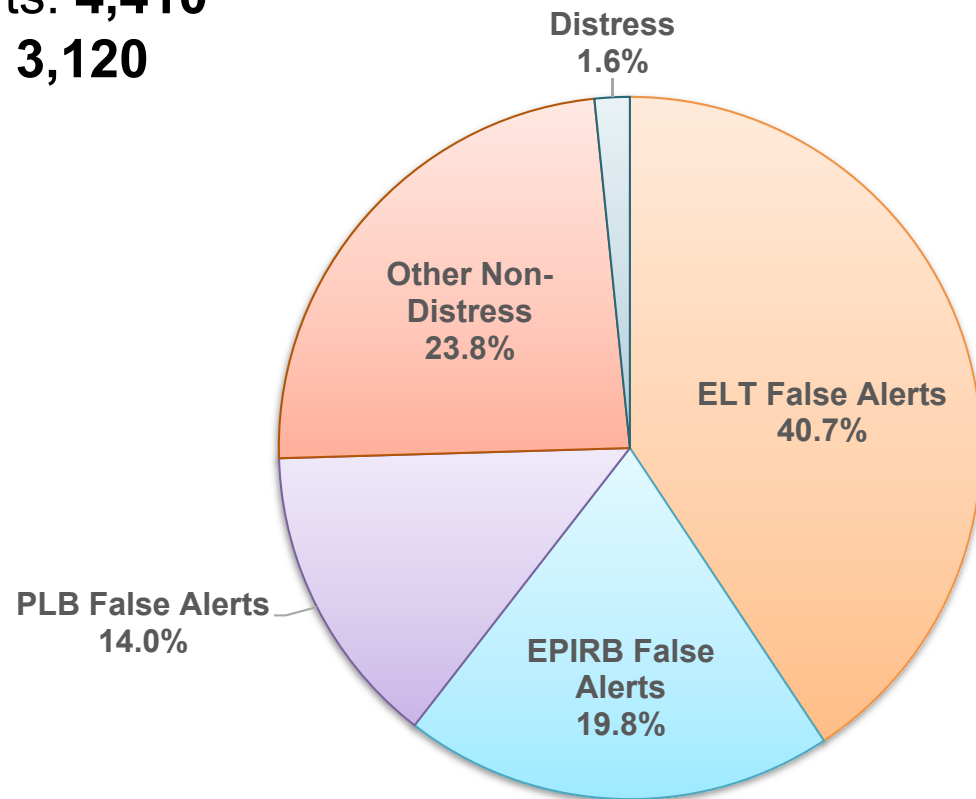


# Non-Distress vs. Total Activations - 2023

In 2023, the USMCC received a total of **22,248** activations

- ELT confirmed false alerts: **9,052**
- EPIRB confirmed false alerts: **4,410**
- PLB confirmed false alerts: **3,120**
- Other non-distress\*: **5,306**
- Distress: **360**

- Confirmed (operational) false alerts: **74.5%**
- False alerts and other: **98.4%**



\*Includes unassigned, ceased, and undetermined activations



# Non-Distress Alerts By Beacon Type – 2023

	EPIRB	ELT	PLB
Assigned Activations	6,759	11,464	4,017
Non-Distress Alerts	6,693	11,283	3,911
<b>2023</b>	<b>99.0%</b>	<b>98.4%</b>	<b>97.4%</b>
2022*	83.7%	95.4%	90.2%
2021	98.6%	98.1%	95.2%

\*Excludes Nov 2022

# Non-Distress Alerts vs. Registrations – 2023



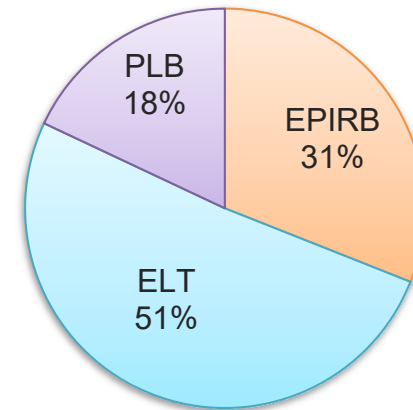
**Total Non-Distress Alerts:** 21,888  
**Total Registered Beacon  
Population:** 817,430

**EPIRB:**  
31% of Non-Distress Alerts  
38% of Registered Beacons

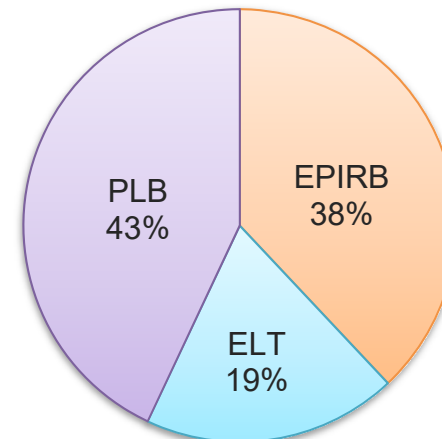
**ELT:**  
51% of Total Non-Distress Alerts  
19% of Registered Beacons

**PLB:**  
18% of Total Non-Distress Alerts  
43% of Registered Beacons

Non-Distress Alerts 2023



Total Registered Beacons





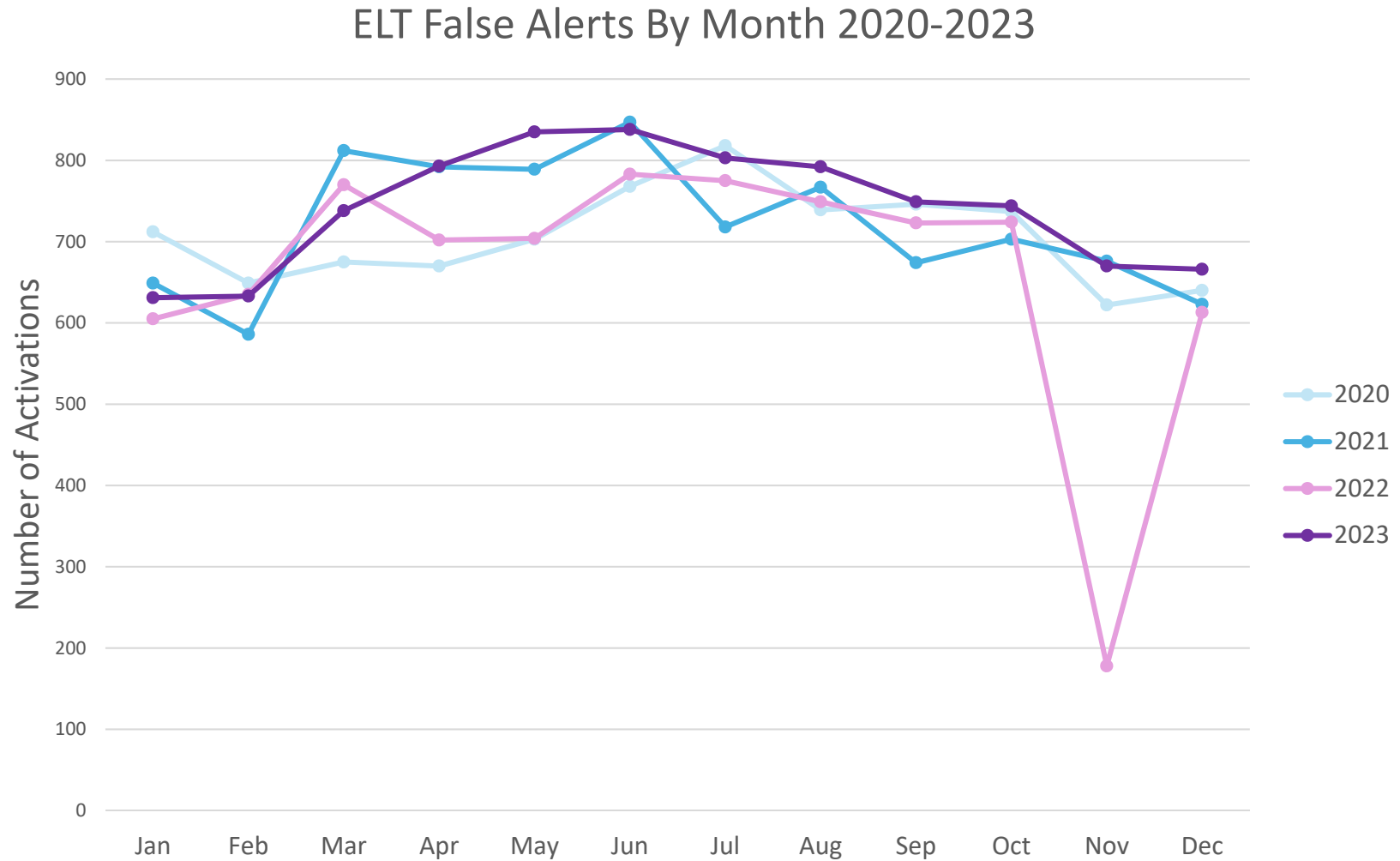
# ELT False Alerts

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- The main cause of ELT false alerts is testing
- Reported causes of mishandling:
  - Improperly activated in *operational* mode rather than in *self-test*
  - Inappropriate test procedures because they do not know which ELT model they are testing or model-specific instructions are unavailable when ELTs are tested
- Aviation Team of Experts (ATE) formed to address ELT false alerts and work with the FAA regarding beacon regulations



# ELT False Alerts by Month





# Past Outreach Events

- EAA AirVenture (July 2023)
- Approximately 677,000 attendees
- 10,000 aircraft into eastern Wisconsin
- 21,883 aircraft operations in the 11-day period from July 20-30

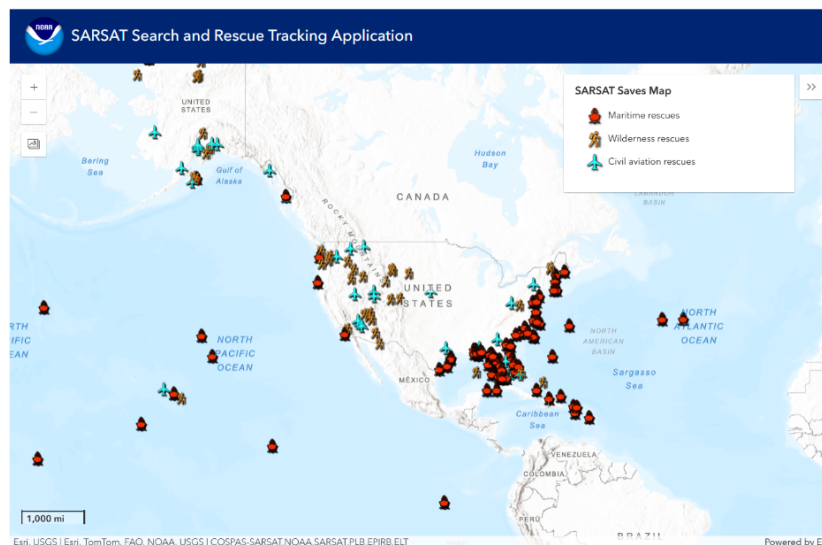






# Current Outreach Items/Events

- Miami Boat Show (Feb 2024)
- SAR Controllers Workshop (Mar 2024)
- 406 Day (Apr 2024)
- Website saves map updates to add additional layers for historical data





# Upcoming and Planned Outreach

- EAA AirVenture, Oshkosh Air Show (July 2023)
  - Focus on registrations and user awareness
- ELT Registration Reminder Cards
  - Collaboration with AFRCC
- Emerging Technologies Brochure



## Search and Rescue Satellite-Aided Tracking (SARSAT) Program

SARSAT/ Beacon Registration  
NSOF E/SPO53  
1315 East-West Highway  
Silver Spring, MD 20910  
888-212-7183



Own an EPIRB or PLB? Call or use the QR code on the back to check your registration. It may help save your life!

BEACON REGISTRATION IS FREE AND INTENDED TO HELP SAVE YOUR LIFE!



[www.beaconregistration.noaa.gov](http://www.beaconregistration.noaa.gov)

# Questions?

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