



# False Alerts and SARSAT Outreach Analysis

SARSAT Beacon Manufacturers Workshop 2022

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# Background – False Alerts

- False alerts comprise approximately 98% of all beacon activations in the US
- 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
- The launching of MEOSAT 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: 1-888-406-USCG (8724)  
U.S. AIR FORCE: 1-800-351-3051

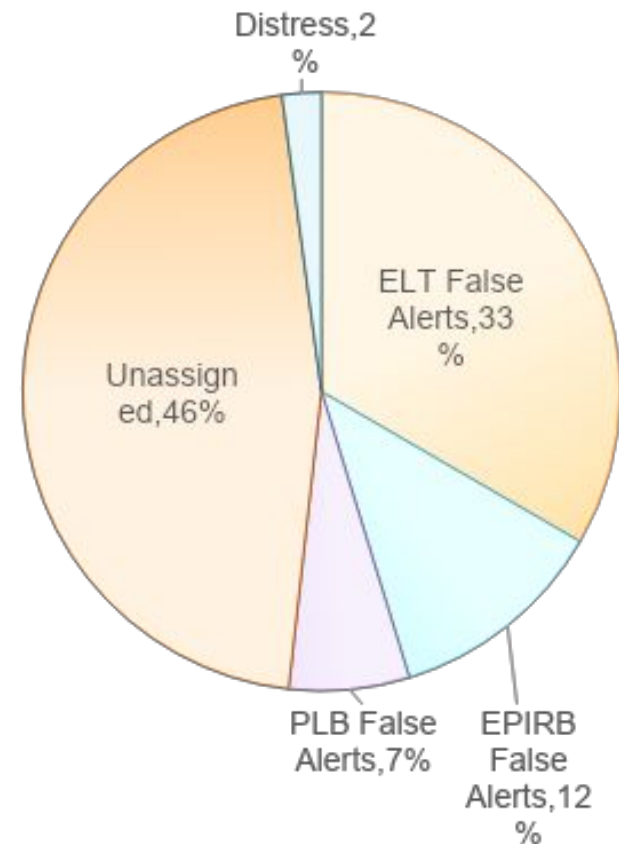
[www.sarsat.noaa.gov](http://www.sarsat.noaa.gov)



# False Alerts vs. Total Activations - 2021

In 2021, the USMCC received a total of **19,246** activations

- ELT confirmed false alerts: **6,419**
- EPIRB confirmed false alerts: **2,288**
- PLB confirmed false alerts: **1,254**
- Unassigned: **8,878**
- Distress: **407**



	EPIRB	ELT	PLB
2019	98.3%	98.6%	
2020	98.3%	98.4%	
<b>2021</b>	<b>98.6%</b>	<b>98.1%</b>	<b>95.2%</b>



# False Alerts vs. Registrations - 2021

**Total False Alerts 2021:** 18,839

(Confirmed and Unassigned)

**Total Registered:** 598,636

**EPIRB:** 5,702

30% of Total False Alerts (30% in 2020)

35% of Registered Beacons (39% in 2020)

**ELT:** 10,691

57% of Total False Alerts (58% in 2020)

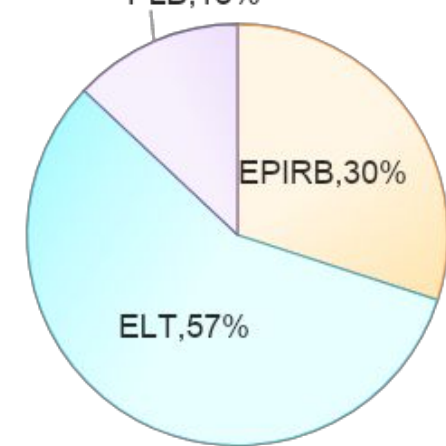
17% of Registered Beacons (19% in 2020)

**PLB:** 2,446

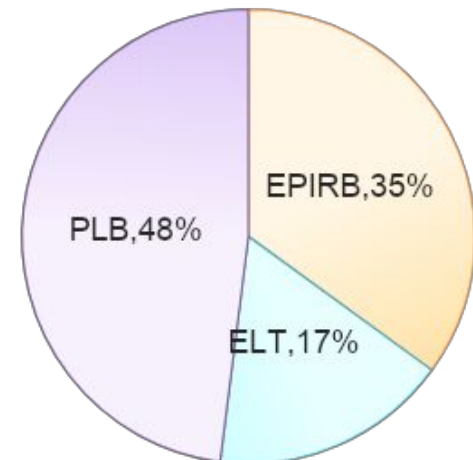
13% of Total False Alerts (12% in 2020)

48% of Registered Beacons (42% in 2020)

False Alerts 2021



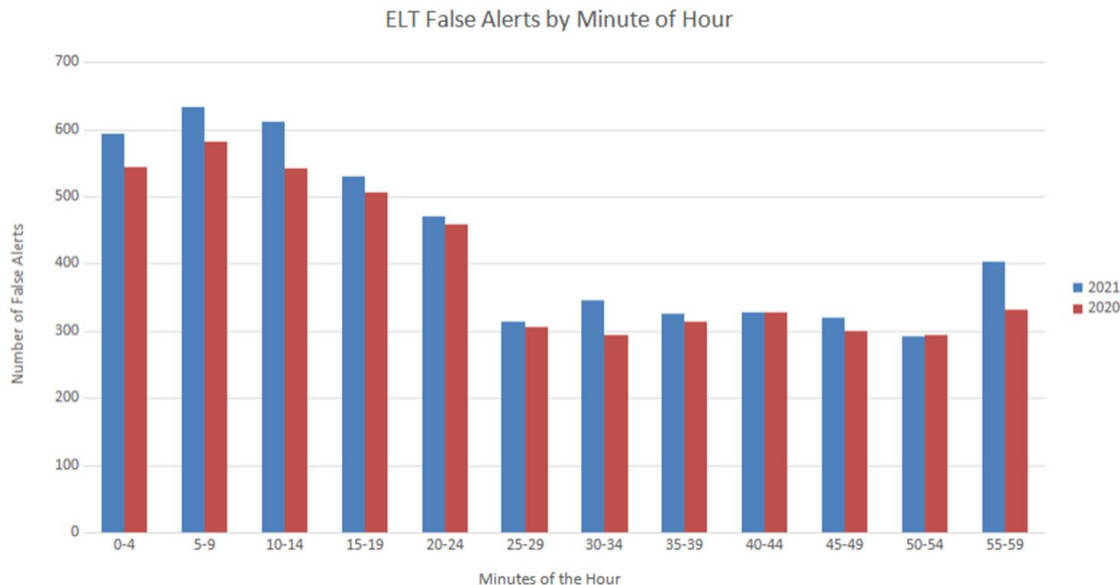
Total Registered Beacons





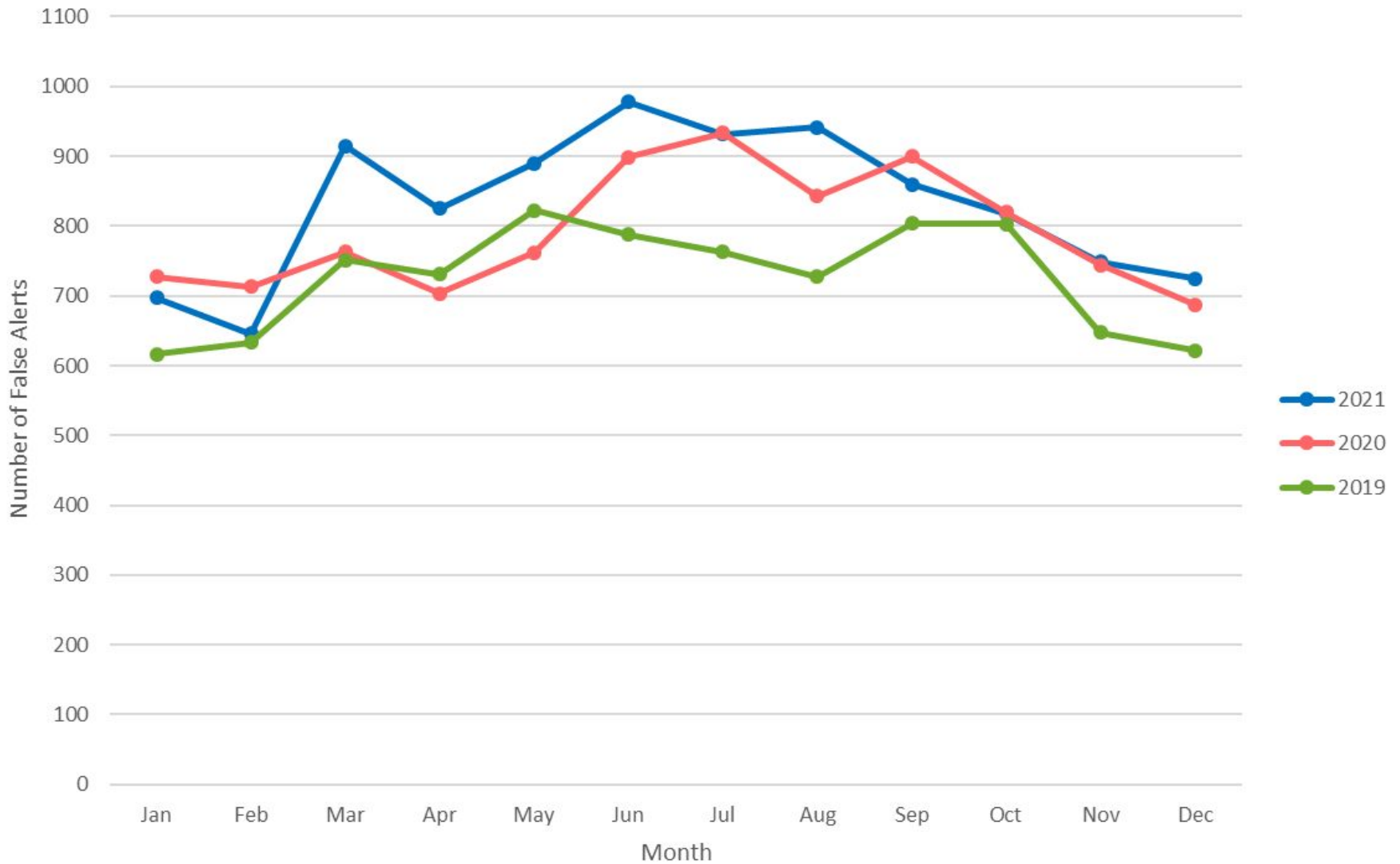
# ELT False Alerts

- 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





# Total False Alerts by Month

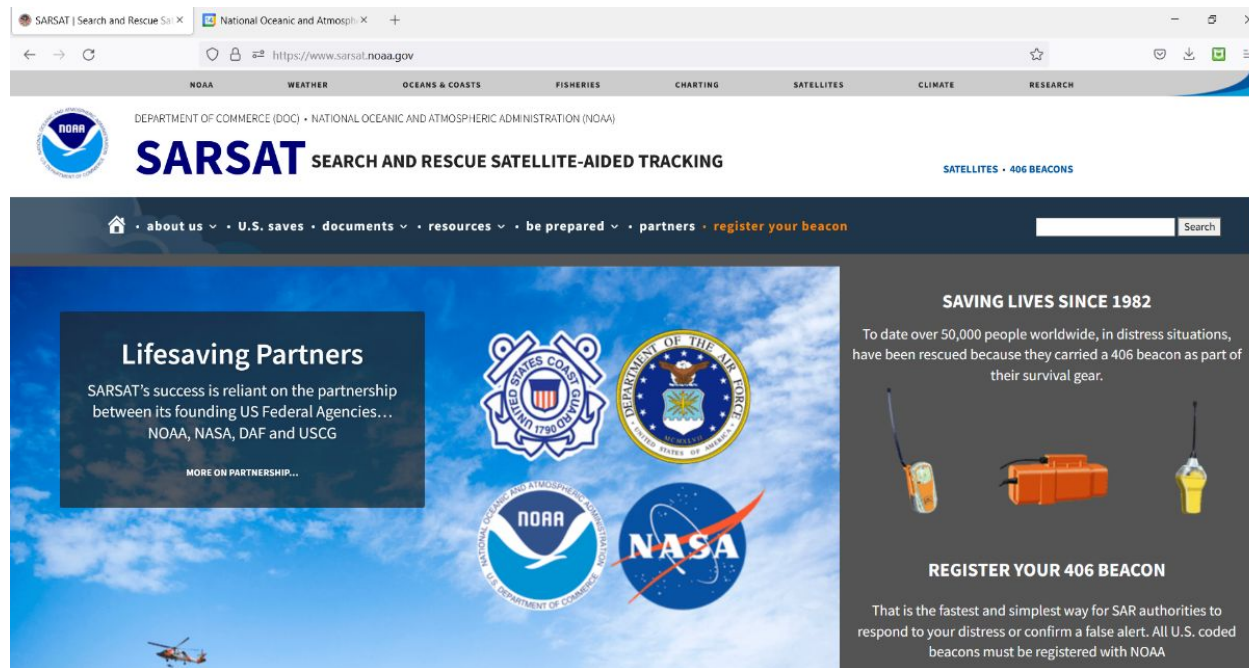






# Past Outreach Items/Events

- Redesigned NOAA SARSAT Website (Jan 2022)
- Miami Boat Show (Feb 2022)
- 406 Day (Apr 2022)
- SAR Controllers Workshop (Apr 2022)





# Ongoing and Planned Outreach

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- EAA AirVenture, Oshkosh Air Show (July 2022)
- Aviation Team of Experts
- Updating Flyers for Events and Website
- Efforts with USCG Auxiliary
- Beacon Turn-In Program
  - Efforts for proper disposal and accurate registration information
- Development of Educational Products





# Contact Information

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202-709-3202




# Importance of Registration

## Register online at [beaconregistration.noaa.gov](https://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 encoded into the beacon
- 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.

Home

 **NOAA** SEARCH AND RESCUE  
SATELLITE AIDED TRACKING

United States 406 MHz Beacon Registration

Username

Password

[Forgot your username or password?](#)

[CREATE LOGIN](#)

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# Total False Alerts by Month 2021

Nov. 2020 to Sep. 2021 False Alerts compared to Registration Age

