



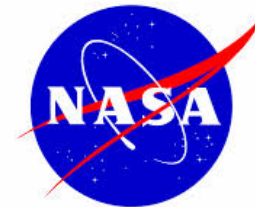
False Alerts, Registration and SARSAT Outreach Analysis

SARSAT Beacon Manufacturers Workshop 2020

LT Aaron D Colohan

NOAA

Operations Officer





Old Topic, New Ideas

- 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
- Search and Rescue is inherently dangerous and expensive
- Currently, ELT's represent the largest portion of false alerts and non-distress beacons.





What's the Problem with False Alerts?

- False Alerts:
 - Waste SAR resources and funds
 - Frustrate SAR personnel
 - Adversely affect SAR personnel's ability to respond to actual distress
- Each activation is treated as a distress by the appropriate RCC until it can be confirmed as “distress” or “non-distress.”
- The USMCC detected 11,558 ELT false or undetermined activations in 2019:
167 of ELT activations were due to distress (98.6% down .1%)
 - Where the false activation reason was provided, 93.5% (3,688 of 3,944) of ELT activations were reported as being due to mishandling.
(down .05%)
- The USMCC detected 5,851 EPIRB false or undetermined in 2019:
102 of EPIRB activations were due to distress (98.3% down .5%)
 - Where the false activation reason was provided, 63% (672 of 1064) of EPIRB activations were reported as being due to mishandling. (Up 23%)



False Alert Rate by Beacon Type vs. Registrations by Beacon Type 2019

ELTs

% of Total False Alerts	60%
% of Total Beacons Registered that are ELTs	18%

EPIRBs

% of Total False Alerts	30%
% of Total Beacons Registered that are EPIRBs	40%

PLBs

% of Total False Alerts	10%
% of Total Beacons Registered that are PLBs	42%



Aviation Team of Experts (ATE)

- Started by LTjg Nate Gillman (NOAA)
- Have had eight meetings since May 2018 (Now Bi-annual)
- Includes Government and Industry partners
- Primary goal is to increase awareness and decrease the number of false alerts along with improving registration
- Have implemented recommendations on outreach and are working toward updated regulations



Reasons for ELT False Alerts

Based on discussions with aircraft operators, aircraft mechanics, aircraft owner associations, and ELT manufacturers, the main cause of ELT false alerts is testing. It appears that ELTs are improperly activated in *operational* mode rather than in *self-test* mode, and that test conductors follow inappropriate test procedures because they do not know which ELT model they are testing or model-specific instructions are unavailable when ELTs are tested.

So let's all help the public and make it easy for them to understand how to test their ELTs!



Action Items from ATE meetings

- **Created Posters and Flyers for distribution to the public. We are in the process of distributing these posters to high impact airports nationwide.**
- **Continue to work with manufacturers to realize new avenues for awareness**
- **Continue working with the FAA to update regulations concerning beacons**
- **Align information across the spectrum to ensure an accurate explanation of the COSPAS-SARSAT system**



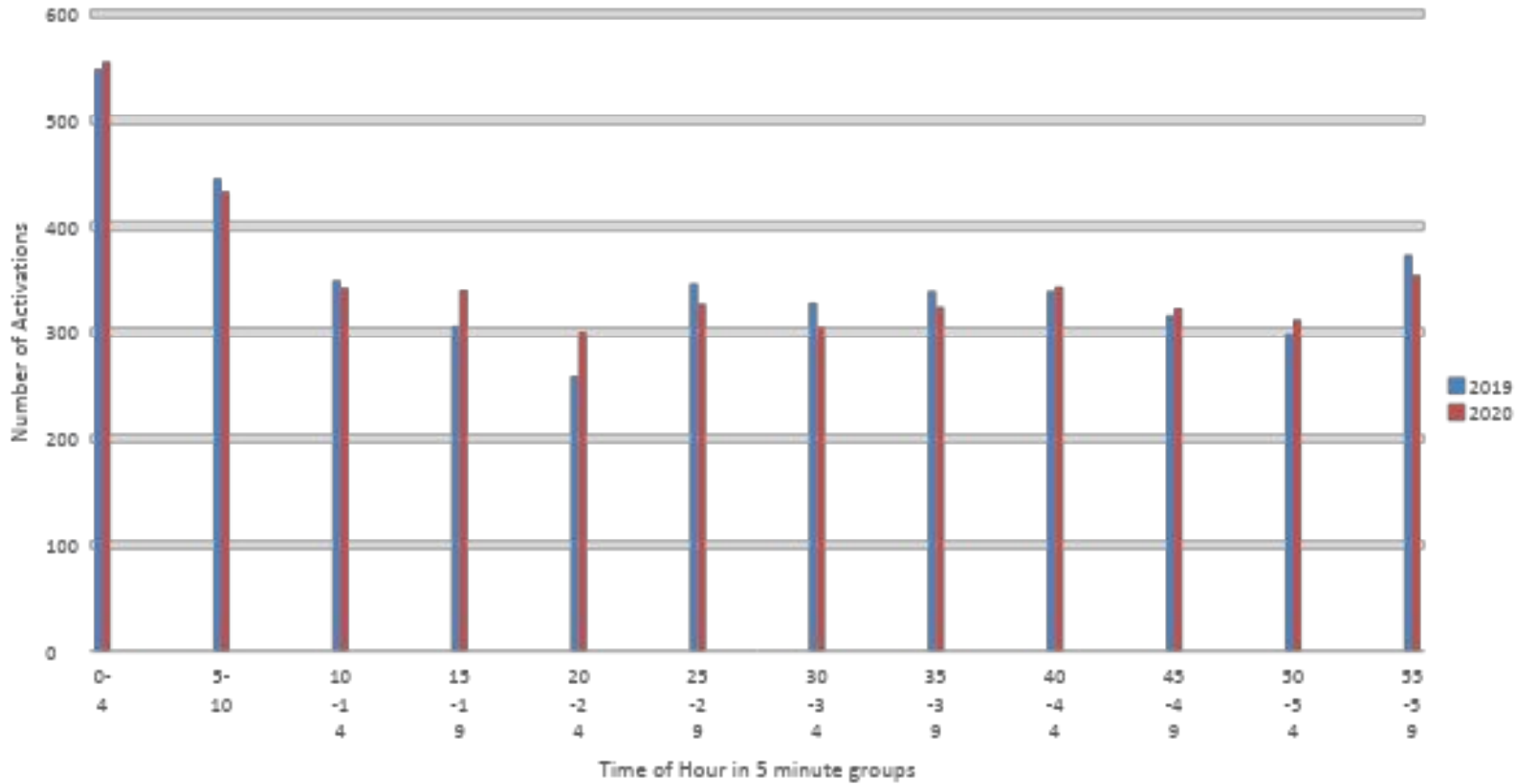


121.5 MHz references

- NOAA satellites have not monitored 121.5 since Feb 2009
- NOAA SARSAT is in the process of removing most, if not all, references to 121.5 as a primary signal on our public materials to avoid confusion.
- It would be beneficial for manufacturers to review their references to 121.5MHz primary and secondary signals and ensure there is no confusion for the consumer
- The practice of testing at the top of the hour continues to play a role in false alerts

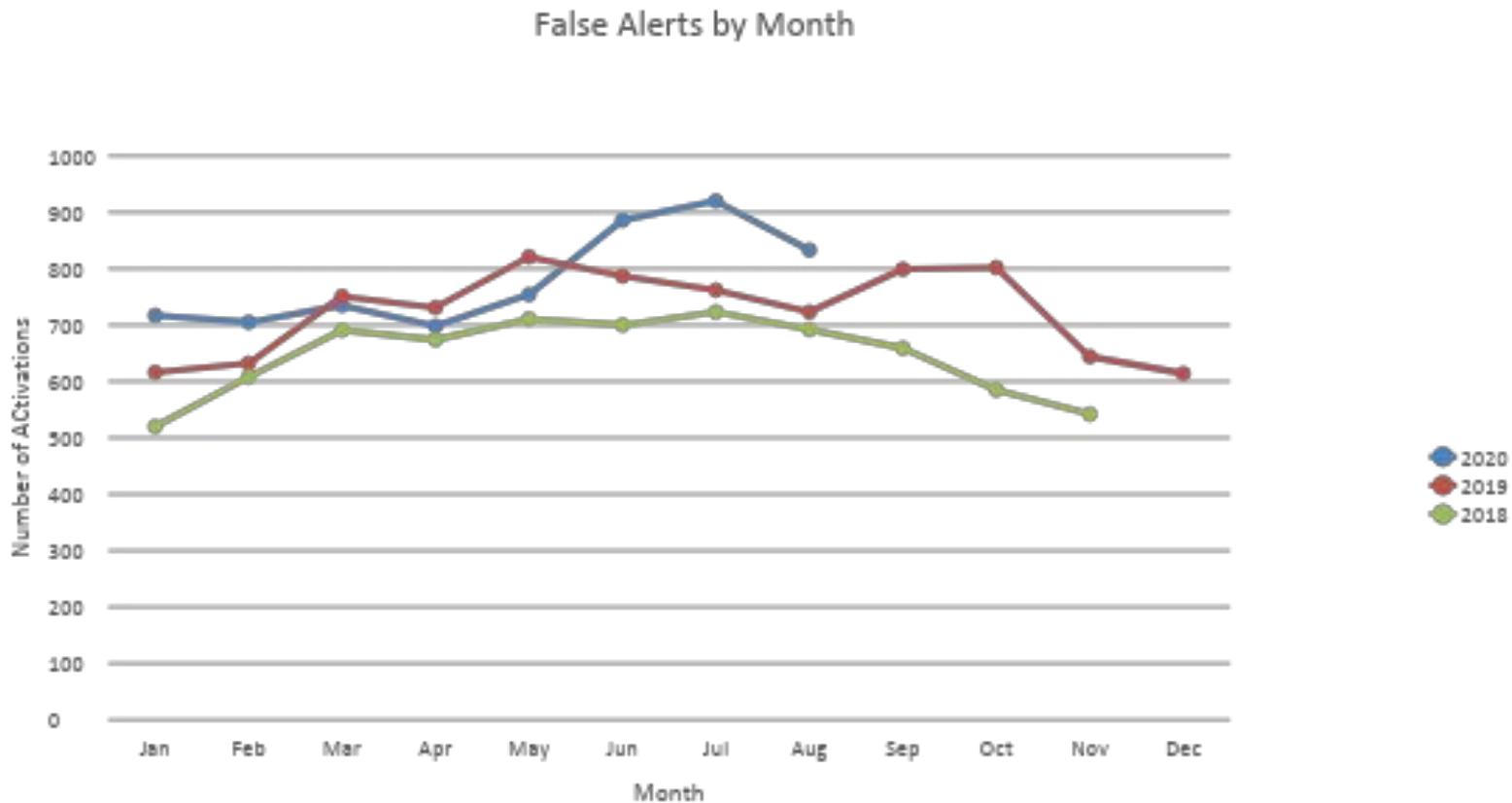


ELT False Alerts by Time of Hour





False Alerts 2020 so far





Outreach Events

- EAA AirVenture, Oshkosh WI (tentative for 2021)
- Miami Boat Show (Tentative for 2021)
- Beacon Manufacturers Workshop
- Social Media outreach with #406day and Twitter Q&A
- Aviation Team of Experts
- AOPA Fly-in (Tentative due to COVID restrictions)




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 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

 SEARCH AND RESCUE
SATELLITE AIDED TRACKING

United States 406 MHz Beacon Registration

Username

Password

Forgot your username or password?

[CREATE LOGIN](#)

*****Warning*****

This is a United States Government information computer system, which may be accessed and used only for official Government business by authorized personnel. Any unauthorized access or use of this computer system may result in criminal or civil action against the user.

All information on this computer system may be disseminated, recorded, stored, copied and collected by any unauthorized personnel for official purposes, including criminal investigation. Access or use of this computer system by any person not authorized or authorized only by special arrangement is prohibited.

SARSAT Sites SARSAT Registration Forms Request to Add Questions List of Subscriptions SARSAT Privacy Policy Emergency Beacon Testing SARSAT Privacy Policy	COSPAS-SARSAT Sites SARSAT Website Division of O&B Programs and O&B Operations NOAA's 406 MHz Beacon Support Beacon Activation/Deactivation/Registration International COSPAS-SARSAT	Related Links Privacy Policy Privacy Act Statement OMB Information User Manual USA.gov FOIA Stacy.gov
---	--	---



Ideas for ELT Testing outreach

ELT manufacturers help us create quick guides that are easy to read and understand—correct and concise.

The new quick guides undergo testing with the public at the Experimental Aircraft Association (EAA) AirVenture show in Oshkosh, Wisconsin

Beacon manufacturers and NOAA SARSAT create ELT testing pages with pictures of ELTs, quick guides, and manuals for ELTs to help personnel identify and utilize proper steps for testing their ELTs.

Any Ideas to help increase registration and decrease false alerts are thoroughly encouraged to be shared

All ELT Manufacturers are encouraged to participate in this initiative.

Contact [LT Aaron Colohan](#):



Discussion/Questions?



Contact Information

LT Aaron Colohan

NOAA

Operations Officer

Ops.Sarsat@noaa.gov

301-817-4757



Back up slides



CONUS distribution of False Alerts October 2018 to August 2019

