



SARSAT EMERGING ISSUES

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SARSAT Transition Update



- Established CG-SAR-3 SARSAT Division
 - Adding billets
 - Three added this past year
 - Anticipating several more (Legal, public affairs, data analyst)
- Minimal impact to JRCCs.
 - POC changes
- Comprehensive public outreach plan
- Increased funding for system improvements, research and development, and public education.

Recent Changes

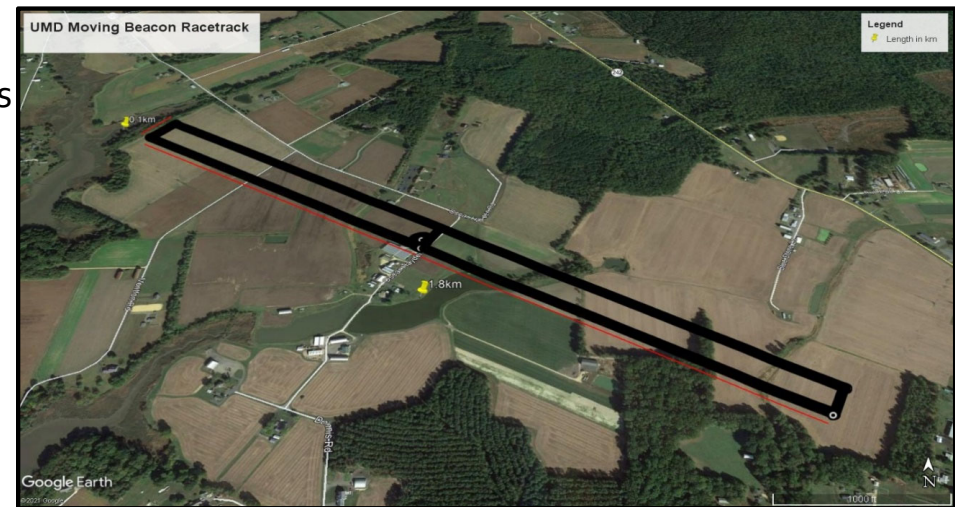


- IHDB Update Indicating presence of data in IHDB
- Inclusion of EE field
- ELT(DT)
!!!!DISTRESS TRACKING ELT!!!!

Moving Beacons and MEOSAR



- Ongoing
- International efforts
- U.S. SARSAT Program effort
 - Buoys
 - Drones
 - NOAA has qualified drone operators to run tests



MEOSAR – IOC/FOC



- IOC = operating at full specifications. The MEOSAR system will not provide **global** coverage during the IOC phase
- Full Operating Capability (FOC)
 - System should be considered fully operational ***and*** have **global** coverage
 - MEOSAR is quickly becoming the primary system
 - (U.S. LEOSATs will go away when MEOSAR is FOC; International LEOSATs will remain; unsure how many LUTs will monitor LEOSATs)
- FOC this year (2024)??
 - United States SAR Region is fully covered
- MEOSAR standards / accuracies / timeliness vs. LEOSAR

Two-Way Communications (TWC)

- Different than Return Link Service (RLS)
- Still in discussions and planning
 - Initial Questions
 - POB
 - Nature of Distress
 - Injuries
- Ability for JRCC personnel to select questions to send to beacon.
 - Will require a separate interface



Second Generation Beacon



- Second Generation Beacons (SGB)
 - L band; no moving beacon issues; greater accuracy
 - FGB = 5 km
 - SGB
 - Location accuracy <1 km, 95% of the time, within 5 minutes
 - Location accuracy <0.1 km, 95% of the time within 30 minutes
 - Will not be mandated, still many FGBs out there for foreseeable future
 - Status – still testing

HEX ID



The following situation occurred on a HC-144 using the Minotaur system to display the 406Mhz DF information. I suspect the outcome will be similar on a C-130J and our helicopters.

Situation: While on patrol in the Gulf of Mexico, a HC-144 hears a 121.5Mhz audible signal, aircrew tune the DF radio to 406Mhz and obtains a 15 HEXID (2DCC9 FCCE0 **37D82**) on their display. HC-144 DFs the signal to a CFV, they establish comms, and CFV crew reads off the HEXID EPRIB 2DCC9 FCCE0 **FFBFF** from the beacon. The two HEXIDs do not correlate.

Solution: Run the HEXID (2DCC9 FCCE0 37D82) through the COSPAS-SARSAT Beacon Message Decode Program to obtain the HEXID 2DCC9 FCCE0 FFBFF that matches the beacon.

-COSPAS-SARSAT Beacon Message Decode Site

[Beacon Message Decode Program 2021 - International COSPAS-SARSAT](#)

Reason: Our aircraft are receiving raw, unfiltered data directly from the beacon and the last 5 digits of this raw data is the beacon's embedded GPS position that will change as the beacon moves (could change every data burst). While processing the alert, the LUT/MCC pulls the embedded position data for the E solution, performs the HEXID filter for us and then provides us the alert via SAROPS.

*This will only be an issue with location protocol beacons. Older beacons without the ability to provide an encoded GPS position will not experience this.

MISC Info



- Access to 24/7 support above MCC controller
- Automatic Dependent Surveillance – Broadcast (ADS-B)
 - You can use this info from Air Traffic Control to help with SAR planning
- SRRs being updated
 - For US SRRs and bordering SRRs
- SARSAT website
 - <https://www.sarsat.noaa.gov>
- YouTube
 - [International Cospas Sarsat Programme - YouTube](#)



Current Discussions

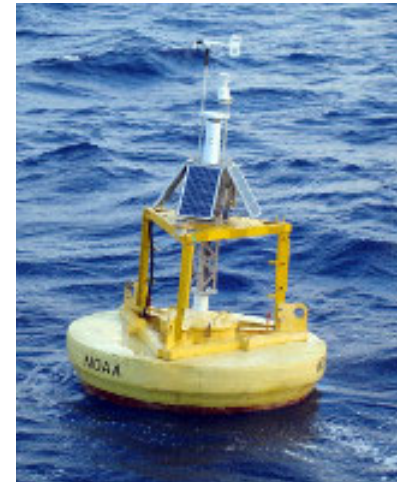
- Reduce number of sent alerts that are unlikely SAR cases through filters
 - Ongoing effort-multiple working groups
- RGDB
 - Anomalies
 - Know search function design
- Adding to (not modifying current info) RGDB with latest owner contact info provided by RCC
 - Beacon Turn-in program discussions
- ELT(DT)
 - Intent is for these to go Areas.

Questions?



Reference Beacons

- Cape Hatteras-150 NM E of Cape Hatteras
 - 2E1CoB1002FFBFF
 - 34.714 N 72.248 W (34°42'52" N 72°14'51" W)
- Oregon-20 NM W of Columbia River Mouth
 - 2E1CoB2002FFBFF
 - 46.163 N 124.487 W (46°9'48" N 124°29'12" W)
- Hawaii-205 NM SW of Honolulu
 - 2E1CoB3002FFBFF
 - 19.196 N 160.639 W (19°11'46" N 160°38'19" W)



What do aircrews see?



