

MERT

Marion County Emergency Radio Team



Marion County Sheriff's Office
Division of Emergency Management

COMMUNICATIONS UPDATE

April 2025

MERT's primary role is to support all open Evacuation Shelters throughout Marion County (FL) during declared Emergency events. We also support the Emergency Operations Center Incident Commander, staff and other EMCOMM groups (CERT, HEC, ARES) with voice, image & data communications locally, statewide and across the U.S.

"Call MERT... When all else fails!"

Next Bimonthly Meeting

May 17th, 10:00 am at the EOC

All Amateur Radio Operators
are Welcomed!

Meetings conducted in Jan,
March, May, July, Sept. and Nov.

Annual EMCOMM Preparations have Begun!



Harlan Cook (KN4VRM)
MERT Coordinator

Each new year, MERT members begin taking steps toward preparing ourselves, and our resources, for the start of the hurricane season beginning June 1st. Many of the steps are simple and are mostly refresher classes on procedures and basic activities. Some require simple revisions or upgrades to align with current directives, objectives and procedures. However, others are more detailed, critical and important elements verifying the radios, antennas and other equipment is stocked, inspected and fully tested.

One of the most important elements is the **shelter tests** confirming the status and quality of MERT's resources at the schools. With each years passing, these systems age and become more susceptible to problems, issues and even failure, especially as a result of being in operation for the last 15-years. I am especially appreciative for all the members supporting this critical inspection & testing activity. Thank you! (Report on this years' findings follow.)

And then... there are years where a few curve balls are thrown where we combine our knowledge and experience to adopt and adapt to new situation(s). This year, we happily embraced that experience with supporting a significant upgrade in the OCF HF support tower provided by Director Preston Bowlin. The new tower is fully hurricane rated and replaces a small galvanized pole previously used (and bent) from years of service. This is another major step improving the survivability and ultimate reliability of our operations when it is most

"Remember that the happiest people are not those getting more, but those giving more." - H. Jackson Brown Jr.

important... **during hurricane weather**. Our sincere thanks to Director Bowlin for his unwavering support in our Goals and providing the resources needed for our success!

To all members, thank you for your support in meeting our Goals per the SOG¹:

“The goals of the MERT program are:

- 1. To create a solid network of communications operators within Marion County for use during any incident or event emergency.*
- 2. To support Emergency Management with the skills and equipment of the communications operators.*
- 3. To enhance support communications throughout Marion County at Shelters.*

Members. We need your active support to achieve our **EMCOMM objectives. Thank you for participating in weekly meetings, the weekly radio nets and Winlink Challenge.**

Very best regards to all!



Shelter Test Report

Our activities were spearheaded by our new Shelter Manager, Ray Woody (WB6FKJ) who did a fantastic job in planning, organizing and overseeing the tests. I know we all compliment Ray for his detailed and thorough plans which guided everyone to conduct and complete the testing focusing on the most important and relevant technical aspects needing testing.



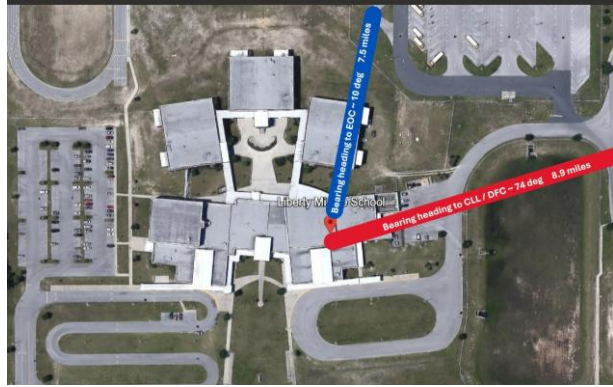
**Ray Woody
(WB6FKJ), Shelter
Manager**

Testing Summary (Does not include all test results and findings.)

- Forest High School – Not Operational – Cable/antenna tests failed
- West Port High School – Not Supportable - MERT systems functional but roof leak creating electrocution hazard
- KG4NXO repeater (70 cm) – County wide reception not possible after Sheriff Tower rehab in late-2024
- School Wi-Fi Access – MCPS blocking access for Winlink digital message communications

As the antenna and cabling systems are approx. 15-years old, these annual tests become more important to complete and we thank the Marion County School District for their support allowing our testing. We also look forward to working with the school district in addressing this years' findings to bring all shelters up to operational and supportable status. Our thanks also to the Division of Emergency Management Director and staff for their support!

“Volunteers are the only human beings on the face of the earth who reflect this nation’s compassion, unselfish caring, patience, and just plain loving one another.” - Erma Bombeck



With this years expanded radio and digital comm's testing, the shelter test teams had a creative and valuable resource identifying the direction and distance to the two MERT repeater locations in Marion County. We acknowledge Gary Nicholas (KQ4HQD) who crafted the idea and Ray Woody (WB6FKJ) for his teamwork showing the distances to the tower locations!

SHERIFF'S APPRECIATION Dinner

Reminder – This Friday, April 4th, is the Annual Sheriff's Dinner at the World Equestrian Center. Doors open at 5:00 PM. Look for Harlan who will do his best to have two tables with the MERT logo allowing members to sit together.



MERT moves to Bimonthly Meetings and Newsletters

MERT, like many volunteer organizations, continues to experience a shrinking membership base who actively support and participate in its goals and objectives. Since the world COVID pandemic, our group of **active volunteers** is 1/3 the level during the 2010's.

While amateur radio has 700,000 licensed operators in the U.S., ARRL reports 151,000 members (average age of 68-years) which challenges some volunteer groups (like MERT) who requires active participation, ongoing training and energetic support in keeping its systems functional for EMCOMM operations.

While amateur radio is an exciting hobby having hundreds of different activities and paths to enjoy - including **MERT's significant contributions** to the safety of emergency shelter residents during declared activations - fewer volunteers are willing to dedicate the time and training necessary to become or remain qualified to help.

You can help by sharing with your friends the enjoyment you receive by being a ham and invite them to a meeting. We will do our best to make them feel welcomed and comfortable!

In the meantime, to keep future meetings relevant, interesting and enjoyable, monthly

meetings and newsletters will move to a bimonthly schedule (meetings held every other month in January, March, May, July, September and November). We look forward to your attendance and all suggestions for discussion topics of interest to you!

Great News - Repeater KK4DFC Upgraded!



Phil Lewis (WB4EVV)
D-Star Repeater
Manager

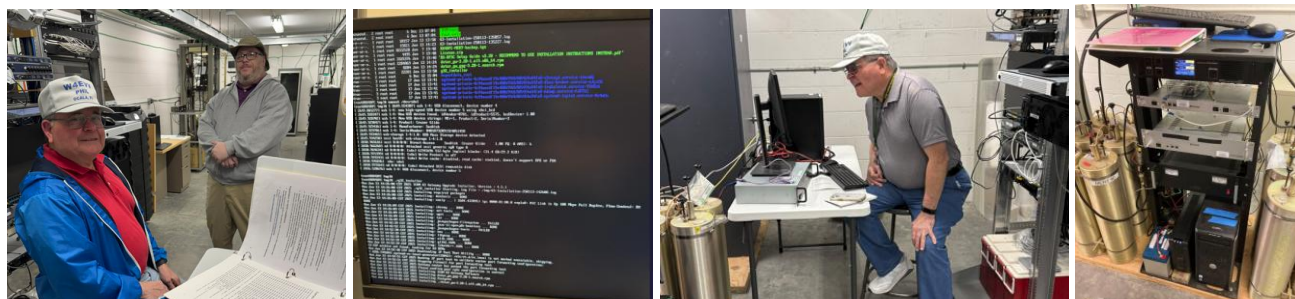
We have wonderful news from Phil Lewis (who is our new D-Star Repeater Manager) that he has successfully upgraded from the 20-year-old Gen. 1 repeater and 10-year-old PC to a new ICOM Gen. 3 model and new PC. Both pieces of new hardware were provided with Director Preston Bowlin's major support by the Division of Emergency Management. Another part of the "upgrade challenge" was a completely new Operating Software (OS) upgrade which had some "kinks" requiring time to work out.

KK4DFC (146.790 MHz) is the primary MERT repeater dedicated to supporting all shelter operations throughout Marion County and is located at the Baseline Transfer Station with the antenna at 300 feet AGL.

Phil shares he has a couple items pending requiring follow up including a new repeater "ID Announcements" system he is researching. Please thank Phil for his **many hours** of detailed attention and perseverance in completing this major reliability upgrade for MERT!

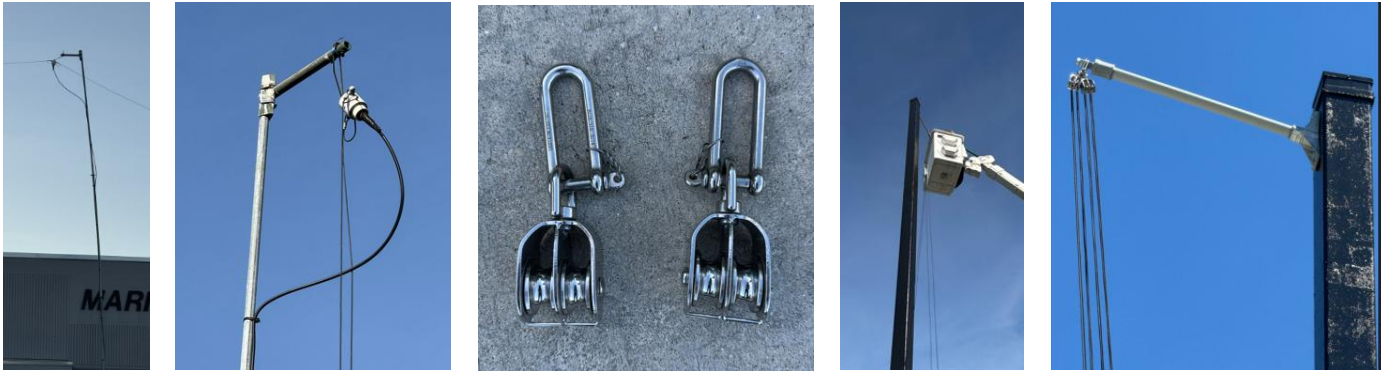
What is D-Star? D-STAR repeaters are a digital amateur radio system supporting voice, data and image communications and especially well-suited for **EMCOMM** operations. Here are some key points about D-STAR repeaters:

- ✓ D-STAR repeater systems include a repeater controller, digital voice repeater, digital data repeater and an Internet gateway PC.
- ✓ D-STAR can connect with and link to other repeater sites worldwide using the Internet.
- ✓ In D-Star terminology, repeaters now called "Digital Regenerative Nodes" or "Regens".
- ✓ MERT uses D-Star to significantly reduce transmissions from "bad actors" during emergencies causing harmful interference.



D-Star Repeater Manager Phil Lewis leads the way on the KK4DFC repeater upgrade. Thanks also to Hayden Kauffman (N2HAY) for his valuable assistance.

MERT Receives New Antenna Tower



(L1) The 15-year-old lift pole needed help. (L2) A view of the old lift pole shows the OCF transformer was permanently mounted preventing easy maintenance access. Center – The new hurricane rated tower was designed using pulleys for accessing the existing (and future) HF antenna hardware at any time. (R1) County employee installing the new



MERT sincerely thanks Preston Bowlin for his support in providing a new, hurricane rated, tower supporting our OCF HF antenna. This is a significant upgrade in the reliability of the HF antenna critical during EMCOMM operations.

A special thanks to Matt Celeri with the County who transferred and installed the new hardware!

2025 Florida AUXCOMM Exercise - April 12th

This year's introduction... *"Florida is under siege as a Cyberstorm unfolds - a devastating outbreak of tornadoes wreaks havoc across the state, crippling infrastructure and overwhelming emergency services."*



On Saturday, April 12th from 9 to 12 noon, everyone is invited to participate in the State-wide **EMCOMM** Exercise. MERT supports your participation from your home station or at the EOC. For MERT members participating... please consider yourself a **Shelter Operator** and be prepared to respond to all conditions and events as such during the Exercise.

Sign up at:

Marion County FL Amateur Radio Emergency Service Website: <https://aresmcf.org/>

"Act as if what you do makes a difference. Because, it does!" - William James



CERT County-wide Training Drill – April 19th

MERT is looking for 5 members to volunteer in providing radio support services to the 4 CERT Teams and as the MERT IC in the EOC on Saturday, April 19th from 8 am till 1 PM.

MERT operators will be imbedded with each team and assist them with reporting events and activities as they would do at their own communities during a county-wide activation. Please email KG4NXO@marionso.com if you would like to participate. (Volunteer list needed by April 9th.)

Skywarn Class – April 23rd

There will be a Skywarn Class at the EOC on the April 23rd from 6 – 8 PM. The Class is free. Visit: <https://alertmarion.com/> to sign up.



Bi-Monthly Meeting



MERT thanks these individuals for their very interesting presentations at the March meeting:

- Hayden Kaufman** - 2025 Florida AUXCOMM Exercise
- Gary Nicholas** - 2025 Hospital Emergency Team Exercise
AUXCOMM Training Class Update
- Ray Woody** - 2025 Shelter Test Activities & Plan



Silent Key Acknowledgement

William "Bill" Davis
1945 – 2025
KQ4ILZ

Interested in learning more about MERT? Visit <https://kg4nxxo.com/>