

MERT

Marion County Emergency Radio Team

TRAINING SKILL BOOK and New Member Orientation Guide

Skill Book Assigned To:

Name: _____ Call: _____

MERT Member Since: _____ Position/Assignment: _____

Email: _____ Phone Number: _____

Skill Book Initiated By:

MERT Leader: _____ Date: _____

Position: _____ License: _____

Phone Number: _____ Email: _____

The Marion County Emergency Radio Team (MERT) is a Volunteer organization created, supported and administered by the Marion County Sheriff's Office (MCSO) Division of Emergency Management.

Specific information on Emergency Management Volunteer Programs along with an Application can be found at: <https://www.marionso.com/emergency-management-volunteering>

All questions about MERT, its roles, responsibilities and the materials herein are to be directed to the MERT Coordinator or MERT Assistant Coordinator at: KG4NXO@marionso.com.

This document is the property of the MCSO Division of Emergency Management.

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TRAINING SKILL BOOK and New Member Orientation Guide

As MERT is a unique Amateur Radio Volunteer Emergency Communications (EMCOMM) organization, this document enables new and existing MERT Members to track and document each learned Skill as they are completed towards increasing levels of proficiency. The document is intended to contain orientation and training plan verifications (copies of License, ICS Certificates, Acknowledgements, Awards, Training Events and presentations, etc.) including completion dates and sign-offs as the MERT Member transitions through each level. The MERT Member is responsible for maintaining their personal plan and having it with them during meetings, training and other assignments. The Skill Book also contains an explanation of each Skill Level, Responsibilities, detailed step-by-step progress sections along with definitions of the Skill level. A MERT Glossary is also provided. Please don't hesitate to ask any member for more information.

MERT Leaders may add, change or modify the Task Book in meeting the requirements established by the Marion County Sheriff's Office Division of Emergency Management upon Approval of the Director. Previous experiences may also be substituted for review/approval of some listed tasks when appropriate.

Note: Members are invited to complete Skills in any Level as individual interests or learning opportunities arise.

The Goal is to have fun, enjoy the learning experience and grow confident in your increasing skills!

Skill Levels:

Level 1 - Entry level into the MERT organization by developing basic skills by completing the New Member Orientation objectives, completion of ICS courses and other basic knowledge.

Level 2 - Validated base level set of skills desired for all MERT Members on radios and systems used.

Level 3 – Demonstrated advanced knowledge and skills for candidacy to MERT Senior and Leadership positions in support of the MERT organization.

Deployment Qualified – Highest level of validated skills – When asked and accepted, may be assigned To deploy up to 2 weeks on various local/distant assignments upon approval.

Individual Responsibilities:

Individual *Reviewing and understanding skill book requirements

- Identifying desired objectives and goals
- Satisfactorily demonstrate completion of tasks for Orientation and full Membership level
- Personally assure the evaluations are completed
- Maintain and keep the Training Skill Book up to date
- Make the Training Skill Book available during assignments
- Responsible for submitting completed Training Skill Book to Leadership for review

MERT Leader *Be knowledgeable and proficient in the tasks being evaluated and approved

- Meet with Member and evaluate past experiences, current qualifications and desired objectives/goals
- Review the objectives of each MERT Member in helping them increase personal skills
- Documenting completion of tasks with Training Skill Book sign off's
- Completing the sign off, provide relevant supporting comments and support to Member.

Administration Manager *Responsible for maintaining database for MERT participants in Training Plan

NOTE: The **approved Leader/Member** shall meet/exceed the qualifications for each Skill signed off and be documented on page 16, Authorized Approvers detailing specific individual skills.

Skill Level 1

New Member Entry Level into the
MERT organization.

Level 1 includes individuals with or without FCC
Licenses and Amateur Radio knowledge.

All persons are encouraged to complete the
Introductory Basic Orientation detailed in
the Training Task Book followed by
courses/classes
on Education, Proficiency and Skill.

Core Objectives include obtaining an
Amateur Radio license, completion of
the four required ICS courses, learning
basic MERT activities and the functions
required in support of the Marion County
Sheriff's Office Division of Emergency
Management.

MERT TRAINING SKILL BOOK and New Member Orientation Guide

NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

SKILL LEVEL 1		WELCOME TO MERT!		
TASK	Req/Opt	COMPLETION DATE	MERT Sign Off	
Security				
Secure MERT ID Badge, Photo Taken and Log In/Out Duties	R			
Apply and Secure 2 nd Level Security Background ID from MCSO	R			
Education				
Meet MERT Administrators & receive Training Task Book binder	R			
Meet EM Staff & Tour EOC Facility & Learn Security Guidelines	R			
Receive, Review and Discuss MERT By-Laws and Standards of Operation including Dress Code	R			
Receive MERT Roster and Review Reporting Hours Guidelines to include MERTrak.com reporting system	R			
Receive and Review Weekly MERT/CERT Net Training Schedules	R			
Review and Understand MERT website KG4NXO.com	R			
Learn the Role & Responsibility of MERT Shelter Staffing *Activation Process *Review in detail Shelter Operator Manual *Shelters Names and Locations *Shelter Procedures	R			
Visit School Shelter site - Identify MERT setup location	R			
Learn about SHREK Kits, Setup, Basic Op's & Battery Use	R			
Learn the MERT Radio room functional design: * Radio Types & Positions * Supporting Antennas *Lightning & Power Protection *Procedures removing Antenna Cables * Fire System and Mandatory - NO SOLDERING RULE	R			
ICS Forms: * Where to Find * Importance and Purpose of Each Type * Completion & Submission Requirements	R			
Complete the following FEMA/NIMS Online Classes				
IS-100 - Introduction to Incident Command System*	R			
IS-200 - Basic Incident Command System for initial Response*	R			
IS-700 - Introduction to National Incident Management System*	R			
IS-800 - National Response Framework, An Introduction*	R			
MERT - Visit Repeater Sites, review the equipment and connection diagrams and sign in/out of the FCC Log Books.	R			
Learn the interoperability goals, objectives and procedures working with other Marion County Emergency Communications (EMCOMM) organizations * ARES * HEC * CERT * MBA	R			
Register, Learn and Use WINLINK Global Radio Email system (*Types - Telnet, Packet, Pactor, ARDOP, VARA FM, VARA HF)	R			
Proficiency/Skill				
Obtain FCC Amateur Radio License – Technician Level	R			
Deployment to a School Shelter during an official Activation	O			
Review “ Importance in Participating in Weekly Net’s” and participate in MERT/CERT Weekly Nets and WINLINK Challenge	O			
Participate in CPR - Stop the Bleed Class	O			
Comment:				

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NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

Level 1 Completion Record

The listed orientation objectives, skills and tasks for **Level 1** having been completed, dated and initialed indicate successful completion for the MERT Member achieving Level 1 status.

_____ The individual is recommended as Certified for **Level 1**.

Date: _____ MERT Leader: _____

Comments: _____

Skill Level 2

This validated Expertise Skill Level is desired by all Members in supporting Emergency Operations in Shelters and at the Emergency Operations Center during a declared Activation.

Level 2 proficiency includes individuals with at least a Technician or General Level FCC License and completion of all FEMA/NIMS ICS Online Courses.

Core Objectives include the setup, operation and troubleshooting capability of major radio systems used at the Emergency Shelters and Emergency Operations Center.

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NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

Skill Level 2			
TASK	Req/Opt	COMPLETION DATE	MERT Sign Off
Security			
Review EOC Security Guidelines	R		
Education			
FCC Rules: Learn what a repeater "Trustee" is, why they are important to MERT including what they are responsible for.	R		
FCC Rules: Learn what a "Exposure Analysis" is and why it is important for Amateur Radio Operators.	R		
Learn what SHARES is and why it is important to MCSO & MERT	R		
Participation			
Participate in weekly MERT NETS (D-Star and/or CERT/MERT) twice monthly	R		
Participate and perform w/ELMER MERT NCO for Weekly NET	R		
Participate and perform MERT NCO for NFAN HF NET	R		
Simulated Emergency Test participation and/or FDEM Monthly Exercise participation	R		
Become a MERT NET Control Operator	O		
Become a Trustee	O		
Become an appointed MERT Manager	O		
Simulated Emergency Test or Exercise Participation (MERT 20, joint ARES/HEC) (Annually)	R		
Comment:			
Proficiency/Skill			
Show how to program IC-880 Mobile radio (Manually or via computer programming via RT Systems, CHIRP, etc.)	R		
Write and send an ICS-213 Winlink message via Telnet and Packet	R		
Receive a Peer-to-Peer Winlink message	R		
Build a simple dipole antenna	O		
Build Anderson Powerpole DC adapter connection	R		
Correctly prepare and solder a PL259 connector to coax	O		
Perform SHREK Kit Audit verifying all equipment is available	R		
Use SHREK Kit and battery to activate a temporary "station" to send/receive voice communications calls with the EOC	R		
Comment:			
Proficiency/Skill			
Obtain Amateur Radio License – General Class Level	O		
Deployment to a School Shelter during an official Activation	O		
Participate in NWS – Skywarn Class	O		
Comments:			

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NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

Level 2 Completion Record

The listed objectives, skills and tasks for Level 2 having been completed, dated and initialed indicate successful completion for the MERT Member achieving Level 2 status.

____ The individual is recommended Certified for **Level 2**.

Date: _____ MERT Leader: _____

Comments: _____

Skill Level 3

This Validated Expertise Skill Level is desired by MERT for all Members in accepting senior positions within MERT including Trustee, appointed Managers, Technical Advisor, Assistant Coordinator and Coordinator.

Level 3 proficiency includes individuals with at least a General Level FCC License and completion of advanced FEMA/NIMS ICS Online Courses including classroom sessions of AUXCOMM and others listed.

Core Objectives include the setup, operation and troubleshooting capability of major radio systems used at the Emergency Shelters and the Emergency Operations Center.

Additional skills include advanced courses on EMCOMM management and leadership.

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NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

Skill Level 3			
TASK	Req/Opt	COMPLETION DATE	MERT Sign Off
Education			
Auxiliary Communication Course (AUXCOMM)	O		
Complete one HURREVAC Training Webinar class annually	O		
IS-120 - An Introduction to Exercises	R		
IS-244 – Developing and Managing Volunteers	R		
IS-288 – Role of Voluntary Organizations in Emer. Mgt.	R		
IS-394 – Protecting Your Home/Small Business from Disaster	O		
In writing, describe how the MCSO PIO interfaces with MERT	R		
Comment:			
Participation			
Controlled Net Participation (Once per Quarter—minimum)	R		
Attend MERT Recruitment Event Participation (Annually)	R		
Simulated Emergency Test or Exercise Participation (MERT 20, joint ARES/HEC) (Annually)	R		
Serve as Net Control Operator (Once per Quarter—minimum)	R		
Volunteer for MERT Activation to a Shelter or the EOC	R		
Comment:			
Leadership			
Hold a General Class License or higher	R		
Present a training session on topics relevant to MERT	R		
Present a second training session on topics relevant to MERT	R		
Hold/held within 1 year, a Manager or Trustee leadership position in MERT	R		
Comment:			

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Proficiency/Skill			
Deployment to a School Shelter during an official Activation	O		
Proficient in using ICS forms by describing most relevant forms use	R		
Describe what D-Star is, why it is useful to MERT Operators and the key elements when programming a compatible radio	R		
Describe what EchoLink is, when it is useful to MERT Operators and display its use to others	R		
Program Tone into HT (Manually or by Computer)	R		
Program frequency & offset into radio (Manual or Computer)	R		
Demonstrate cross band repeat on Mobile Radio (UHF→VHF)	O		
Operate VHF Winlink station in Peer-to-peer mode	O		
Describe what a VHF or HF Winlink Gateway station is	O		
Use a SHREK Kit and battery to activate a temporary "station" and send/receive WINLINK digital messages with the EOC	R		
Explain what a NVIS antenna is, why it is used, participate in deploying a unit at a MERT event and send/receive transmissions with other HF stations	R		
Lower then raise the MERT tower at the EOC after performing an inspection of the cabling and antenna connections and logging the results into the tower logbook.	O		
Identify the specific MERT Antennas on the EOC Tower connections to the radios in the Radio Room	R		
Comment:			

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NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

Level 3 Completion Record

The listed objectives, skills and tasks for Level 3 having been completed, dated and initialed indicate successful completion for the MERT Member achieving **Level 3 status**.

_____ The individual is recommended as Certified for Level 3.

Date: _____ MERT Leader: _____

Comments: _____

Skill Level Deployment Qualified

This validated Expertise Skill Level is available for all MERT Members wishing to support MCSO Deployment activities beyond operations at the Shelters and the EOC after declared emergencies.

Deployment Qualified proficiency includes individuals with a General FCC License (or higher) and completion of additional advanced FEMA/NIMS ICS Courses by online study or classroom participation.

Core Objectives include advanced leadership classes/courses and advanced skills of setup, operation and troubleshooting SHARES, HF, 2 Meter and 70 cm system capabilities on the Mobile Command Center (MCC).

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NAME: _____ CALL: _____ LICENSE CLASS: _____

DATE: _____

MERT SKILL LEVEL DEPLOYMENT QUALIFIED			
TASK	Req/Opt	COMPLETION DATE	MERT Sign Off
Education			
Auxiliary Communications Course (AUXCOMM)	R		
IS-230 – Fundamentals of Emergency Management	R		
IS-240 - Leadership and Influence	R		
IS-242 – Effective Communications	R		
IS-2200 - Basic Emergency Operations Center Functions	O		
Participation			
Controlled Net Participation (Once per Quarter)	R		
MERT Recruitment Event Participation (Annually)	R		
Simulated Emergency Test or Exercise Participation (MERT 20, joint ARES/HEC) (Annually)	R		
Become Net Control Operator leading regular MERT NET's	O		
Leadership			
Present a training session on topics relevant to MERT	R		
Present a second training session on topics relevant to MERT	R		
Hold a General Class License or higher	R		
Hold MERT Manager or MCSO SOG listed Office position	R		
Become a MERT Repeater Trustee	O		
Comment:			
Proficiency/Skill			
Deployment to a School Shelter or Eco or IC Assigned location during an official Activation	R		
Demonstrate skills to correctly setup and operate radio and antenna systems on the Mobile Command Center (MCC) for SHARES, HF, 2 Meter and 70 cm communications.	O		
Create a list and describe the components of a 1-week Personal Go Kit including necessary sleeping, hygiene and clothing appropriate for deployment location and conditions	R		
Create a personal Go Kit reference resource (laptop or thumb-drive) that includes necessary ICS Forms, Radio Logs, Operating Manuals, U.S. Repeater listing & other materials required in supporting a deployment to any U.S. location	R		
Program Tone into HT (Manually or by computer)	R		
Program frequency & offset into any radio MERT uses	R		
Demonstrate ability to Setup and Operate SHARES	R		
Demonstrate ability to setup a VHF/UHF and/or HF operation using MERT HF/MCC GO KIT	R		
Operate HF Winlink station	R		
Demonstrate Winlink Peer-to-Peer mode	R		
Comment:			

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DEPLOYMENT QUALIFIED Level Completion

The listed skills, tasks and experience for the **DEPLOYMENT QUALIFIED** Level having been dated and initialed indicate successful completion of all the tasks required of the MERT Member for the **DEPLOYMENT QUALIFIED Level status**.

____ The individual is recommended as Certified for **DEPLOYMENT QUALIFIED Level**.

Date: _____ MERT Leader: _____

Comments: _____

Deployment Authorization Request

Request for Deployment Team consideration

DATE: _____

NAME: _____ CALL: _____ LICENSE CLASS: _____

Date: _____ Signed: _____

When approved, information to be sent to MCSO Division of Emergency Management Director.

Submitted By: _____ Acknowledgement: _____

Title: _____ Title: _____

Date: _____ Date: _____

MERT TRAINING SKILL BOOK and New Member Orientation Guide

AUTHORIZED APPROVERS (Authorized Approver may be by Title, Skill Level or Subject Matter Expertise.)

Name: _____ Title: _____ Initials: _____

Skills: _____

Name: _____ Title: _____ Initials: _____

Skills: _____

Name: _____ Title: _____ Initials: _____

Skills: _____

Name: _____ Title: _____ Initials: _____

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Name: _____ Title: _____ Initials: _____

Skills: _____

Name: _____ Title: _____ Initials: _____

Skills: _____

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Version	Release Date	Change Type	Change Type* Log Entry & Detail
1.0	08/01/2022	Original	Original concept with focus on Level 1 details
2.0	08/11/2022	Add	Original concept with focus on Level 2 details
3.0	10/01/2022	Add & Change	Original concept with focus on Level 3 & 4 details – Change 1 & 2
4.0	09/22/2023	Add & Change	Revised Levels 1, 2 & 3. Add education details Level 3 & 4
5.0	10/02/2023	Add & Change	Add and change elements of Levels 1 – 4 with Member feedback.
6.0	11/05/2023	Add, Remove & Change	Add, Remove & Change skills to Levels 1 & 2 based on Team Meeting feedback, make second Background ID required for Level 1
6.1	11/24/2023	Add, Remove and Change	Add Change Log (Page 17), Remove and Change education from Levels 3 & 4 aligning with ARRL (ARES) and CISA (AUXCOMM) Task Book, remove version/date from first page. Added on Page 2.
6.2	12/06/2023	Add, Remove and Change	Add blank Page 2 (with notice) protecting Page 1 from future change. Move version/date from Page 2 to Page 3. Remove “Amateur Extra Class” and add “(or higher)” on Page 13.
6.3	01/14/2025	Add & Remove	Add for Page 2, Introduction, “Emergency Communications (EMCOMM)”. Add for Level 1, Page 4, Proficiency/Skill box 3, “Review “Importance in Participating in Weekly Net’s” and participate in...”. Add for Level 2, Page 7, Participation section, box 1 “twice monthly”. Remove from same section, box 2 “SARNET”. Remove for Level 3, Page 10, Leadership section, Proficiency/Skill box 3, “Participate , “in NWS – Skywarn Class”. Remove for same section Leadership section, box 5 “CPR/AED” Required class”. Add for Page 18, Appendix, Part A) underlined “ <u>in, creasingly competent Members...</u> ” Remove for Level 4, Page 14, Proficiency/Skill box 11, “Complete CPR – Stop the Bleed class within 1 year”.
6.4	12/11/2025 to 01/09/2026	Add, Change & Remove	Add Net “Training Schedules” to Skill Level 1; Change NFL to “NFAN” for Skill Level 2; Change task “IS-394 – Protecting Your Home/Small Business from Disaster” to “Optional”; Remove “IS-241 – Decision Making and Problem Solving” from Skill Level 4 (FEMA deleted).

*Change Tye: Change Type: Fix, Change, Replace, Removal, Add

Appendix

- A) This document was created by the coordinated efforts of MERT Members. It is designed to help all Members advance their knowledge and skills in Emergency Communications (EMCOMM) and focused on having increasingly competent Members supporting the Marion County Sheriff's Office Division of Emergency Management whenever and wherever Activated or Deployed. Recommendations and suggestions for improvements are encouraged and welcomed by contacting the MERT Coordinator or Assistant Coordinator at KG4NXO@marionso.com.
- B) This document was designed to support a self-directed training effort which encourages the responsibility of learning by the Member. This gives each Member the opportunity to make every decision when it comes to gaining the knowledge and skills needed for MERT membership.
- C) MERT acknowledges and thanks the American Radio Relay League (ARRL) and the Amateur Radio Emergency Service® (ARES®) for approval to use its Standardized Training Plan – “ARES Emergency Communicator Individual Task Book” outline. (ARRL North Florida Section, Scott Roberts KK4ECR – Section Manager, Oct. 5, 2023.)
- D) The MERT Training SKILL BOOK and New Member Orientation Guide was compiled from many resources including the “MERT Performance Packet” and the “MERT New Member Orientation Guide”. [Background Note: MERT ceased using the “Performance Packet”, 2018 and the “New Member Orientation Guide”, March 2020.]
- E) This document includes recent training developments consistent with the Auxiliary Communications (AUXCOMM) program developed by the Department of Homeland Security - Cybersecurity and Infrastructure Security Agency (CISA). It is being deployed nationally to all auxiliary emergency/public service communications units. While AUXCOMM stands for Auxiliary Communications, it is considered a Primary Emergency Communications asset and is overseen by qualified amateur radio personnel and experienced Emergency Management leaders. Some state AUXCOMMs are tasked with establishing county AUXCOMM units led by appointed qualified volunteer AUXCOMM Coordinators. See: <https://www.cisa.gov/safecom/comu-training-resources>

Following this page, please include copies of FCC Licenses, Training Acknowledgements, FEMA/NIMS ICS Course Certificates, Awards, Transcripts and all other Documents referenced in your Skill Book.

Please attach/include the relevant documentation prior to MERT Sign Off.