

SLOECC

ARES[®]/RACES

Training Plan



Acknowledgement and Thanks to the Oregon Section, ARES-Races Training Plan from which many of the ideas, tasks and verbiage were taken. *“For many of the County ARES/RACES units in Oregon Section, this plan as currently written is adoptable “right out of the box” ; This is a baseline, example plan that county ARES/RACES units may adopt on a turn-key basis, or preferably, build upon by evaluating the unique missions in the County and adding appropriate performance-based skills and task evaluations, and customizing their formats if desired.”* This Oregon plan, along with plans from other ARES/Races units published on-line, and from ARRL EmCOMM on-line documents serves as the basis for this SLOECC ARES/RACES Training Plan.

ARES is a trademark of the American Radio Relay League.

Revision History

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Executive Summary

1. This Training Plan identifies the minimum requirements for both knowledge and skills-based training elements for individuals as ARES/RACES members in SLOECC. It also identifies recommended training elements for further proficiency in emergency communications.
 2. Minimum training standards are required to have an effective mutual aid and ARES/RACES program within SLOECC. Served agencies requesting emergency augmentation manning and communications must have reasonable assurances that the individuals selected for assignment have the necessary skills set to accomplish the requirements of the position they are being asked to fill. Served agencies increasingly want assurances that response personnel are adequately trained to perform the tasks required of them, within the context of the Incident Command System. A formal, common training program is perhaps the best means of accomplishing that.
 3. This Plan identifies baseline minimal requirements only; it is intentionally not exhaustive because of the limits on time and resources that constrain most volunteer organizations. Identifying hundreds of tasks, most of which may never need to be performed, is a waste of time and effort. The SLOECC Board of Directors or their appointees may add to the required tasks over time as needs become evident.
 4. This plan details required FEMA courses, recommended enrichment training, and recommended additional professional development course work, all of which are known as “knowledge training”. All can be taken on line, at the members own pace, for no cost or a minimal cost. Additionally, task-oriented equipment and systems training has been identified (skills training).
 5. All members of the San Luis Obispo County EOC Volunteer ARES/RACES Staff (badged I.D. holders) must accomplish and document the basic Radio Operator requirements before being eligible for call up in the event of an emergency. An individual need go no further than basic Radio Operator requirements, or may opt to pursue any of the other recommended course work and skills training leading to Emergency Coordinator. Prior experience in EmComm, ham radio, or with other providers of emergency services may substitute for the requirements as appropriate.
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SLOECC Mission Statement

The San Luis Obispo County Emergency Communications Council (SLOECC) -- established by local amateur radio operators to coordinate the activities of ARES and RACES -- serves as a support organization for all amateur radio emergency services in the County. SLOECC, through its Board of Directors and program committees -- provides logistic support, periodic training meetings, weekly on-the-air drills, a web site, and numerous field-training exercises to help prepare ARES and RACES members for effective emergency communication service

Baseline Minimum Training Plan

Section 1: Purpose

1.1 The purpose of this baseline Training Plan is to increase the consistency, effectiveness, and professionalism of the technical, task-oriented skills training for any radio amateur and is conducted for the benefit of SLOECC ARES/RACES unit members. These are the subjects in which we will be providing training at various meetings during the year. The intent of this training plan is to outline the education that will help the radio amateur to become a proficient emergency communicator. No one starts out great, it's a progression. These topics are meant to be a roadmap to excellence not a barrier to entry.

Section 2: Background

2.1 Trained members leave, and new “rookies” take their place. Technology drives the adoption of new systems and equipment. Thus, the state of training in SLOECC ARES/RACES is a continuum, with some members having excellent skills and training while others are new to radio and EmComm. This baseline training will focus on VHF/UHF radio communications appropriate for all levels of amateur license holders.

Section 3: Goals and Objectives

3.1 Provide a baseline training program of common core competencies (tasks) of VHF/UHF radio that can be counted on when personnel may be requested by other units for mutual aid or augmentation manning.

3.2 Provide a meaningful training that fulfills the expectations of current and future members of SLOECC.

3.3 Provide additional training recommendations that allows individuals to advance to a level of their choosing while still providing for the minimum skill sets necessary for an effective unit-level response.

3.4 Provide for a common documentation system that captures each member's accomplishments and provides documentation to served agencies that response personnel are adequately trained to perform the tasks required of them. Such training records will be held in a common repository kept by the Secretary of SLOECC.

Section 4: Discussion

4.1 Any top-down, inflexible training program from the ARRL Section, the ARRL, or from any third-party for that matter, is likely to be an impediment to an effective County training program, not a benefit. This Training Plan is not to be a top-down, inflexible program. It is only a baseline of minimum requirements and recommendations that anticipates further modifications and customization. Hopefully, it will also become a resource of training philosophy, technical training, best practices, training tools, and within the SLOECC infrastructure, a move towards a NIMS compliant task-based training and performance evaluation system for individual skills recognition and credentialing.

4.2 Training should be on-going, and take place in some aspect at every meeting of the unit. If the training meetings are held as part of “dinner” meetings, 501(c)(3) business meetings, or Ham Club meetings, the training program will not be focused or effective. Social events or business meetings should be planned apart from the minimum 12 to 24 hours of scheduled, recurrent training. For organizational efficiency, it is recommended that a “Training Manager” be appointed whose job will be to schedule skills-based trainings, to get instructors for each “task”, to assure that training handouts and binders are available for each participant and each ECC, and to collect and forward training records to the SLOECC Secretary.

4.3 Members shall provide evidence of completion of the on-line knowledge training, but for skills-based training, task performance sheets should be 1) signed by the member and 2) signed and dated by a trainer/evaluator, and 3) collected, and archived in the SLOECC Training Record repository.

4.4 An plan/calendar of training shall be published giving topic, subject, or task to be discussed and practiced. As the scheduled dates approach, detailed lesson plans shall be prepared and the training promoted in advance.

4.5 Skills-based training shall be conducted hands-on using the actual personal equipment owned by the individual members, as well as the actual ECC unit’s and EOC equipment. “Skills-based training” may incorporate some aspects of knowledge training, but adds a dimension of teaching a replicable behavior that is the primary objective of the training, and determining the ability of the student to successfully replicate the behavior. In but one example that applies to Amateur Radio, a classroom module may teach the need for, and use of, CTCSS tones in repeater systems. As a part of the training, the student would then be instructed in how to set CTCSS tones on radios conceptually and/or through hands-on training on actual equipment. Finally, the student might be required to demonstrate his or her ability to translate the general knowledge and skills learned to actually being able to program their personal HT to successfully access a CTCSS enabled repeater, simulated or actual. All of the foregoing, while adding some elements of personal activity, typically still takes place in a formal classroom (some might say “artificial”) environment. Skills-based training gets closer to the core of the kind of training that should predominate in a county-level training program.

“Performance-based training”, occurs when prior knowledge-based and skill-based training are integrated in a real world or realistic exercise scenario. Individuals are placed into operational situations that require the ability to synthesize solutions and react to situations that require them to draw upon previous training and experience.

4.6 For all topics and trainings, appropriate handouts or guides suitable for putting into a binder shall be prepared. These handouts shall be kept by the member for future reference and in a binder also located at the ECC and EOC units.

Section 5: Required Minimum Skills-based Tasks

5.1 The following task list pages have been developed for SLOECC ARES/RACES use, and are progressive. They are organized as numbered higher order tasks, with specific “bullets” developed for each task. It is recommended that for each skills task, a trainer or evaluator present the information required and possibly demonstrate the task. The members shall then practice the task and demonstrate to the evaluator their successful completion of the task.

5.2 Knowledge-based on-line study courses:

- A) Introduction to Incident Command System - NIMS IS-100.b
- B) ICS for Single Resources and Initial Action Incidents - NIMS IS-200.b
- C) National Incident Management System - NIMS IS-700.a
- D) National Response Framework, An Introduction - NIMS IS-800.b
- E) ARRL EmComm Course EC-001. This newly revised course is available on line (\$50), or in book form(\$25) for self-study,. It “bridges the gap” between the Federal Incident Command System and Amateur Radio, expanding on the specific ways, means, and roles Amateur Radio can play in helping with emergency backup communications. (A certifying final exam may be given by local VEs for \$15)

5.3 Additional enrichment courses recommended for ARES/RACES:

- A) NIMS IS-802, Emergency Support Function 2
- B) NIMS IS-22, Are You Ready? An In-Depth Guide to Citizen Preparedness
- C) NIMS IS-317, Introduction to Community Emergency Response Teams

5.4 Radio Operator Skills-based Task List

5.4.1. Obtain and assemble information and materials needed for assignment.

- Obtain a copy of the county ARES/RACES frequency and Response plan
- Obtain and pre-program a suitable personal HT radio programmed with the county frequency plan
- Assemble a 24-hour kit suitable for a county mission and assignment

Completed Date: _____ Evaluator: _____

5.4.2. Demonstrate familiarity with communications equipment, procedures and basic functions/capabilities

- Be able to input a frequency, tone, and offset into your personal HT and/or mobile radio
- Be able to operate and program the base station radios at your local ECC
- Know what frequencies and/or nets are present on what radios, and the purpose of each

Completed Date: _____ Evaluator: _____

5.4.3. Correctly fill out and/or process appropriate forms.

- ICS-309 Communications Log
- ICS-213 NCR form for tactical voice traffic and for internal use

Completed Date: _____ Evaluator: _____

5.4.4. Communicate information effectively to Net participants.

- Be net control for Tuesday Local SLOECC ARES/RECES net
- Be net control for Tuesday SLOECC county net
 - Use correct Radio protocols
 - Write legibly and speak clearly
 - Use standard terminology, designators, acronyms, and symbols
 - Acknowledge requests, and provide feedback
- Correctly recite the standard ITU Phonetic Alphabet

Completed Date: _____ Evaluator: _____

5.4.5. Use appropriate communication protocol when responding to emergency situations.

- Demonstrate radio net procedures used for emergency traffic
- List types of information never to be spoken over voice nets

Completed Date: _____ Evaluator: _____

5.4.6. Use appropriate communication protocol when responding to routine requests/information.

- Demonstrate radio voice net procedures used for routine traffic
- Discuss the difference between tactical traffic, emergency, and health & welfare traffic
- List the preferred means and modes for processing the above

Completed Date: _____ Evaluator: _____

5.4.7. Use packet radio and Winlink to send digital messages.

- Demonstrate programming of digital frequencies into radio
- Demonstrate the log on, boot up and opening of Paclink and Thunderbird
- Demonstrate the log on, boot up and opening of RMS Express
- Demonstrate connection to digipeater, peer-to-peer, and simple terminal packet
- Successfully send and receive packet messages

Completed Date: _____ Evaluator: _____

5.5 Technical Setup Skills-based Task List

5.5.1. Determine appropriate location for communications equipment.

- Observe spatial separation requirements of antenna systems
- Elevate radiating elements sufficiently

Completed Date: _____ Evaluator: _____

5.5.2. Install communication equipment at determined locations.

- Evaluate terrain, path, accessibility, and safety
- Select and install the correct antenna system for a given frequency and application

Completed Date: _____ Evaluator: _____

5.5.3. Establish installation priorities while adhering to safety standards regarding communications.

- Observe and abate RF exposure and RF burn concerns
- Avoid creating tripping hazards
- Use caution when climbing or doing overhead work
- Handle high-amperage and/or high voltage equipment with care

Completed Date: _____ Evaluator: _____

5.5.4. Test components of communications equipment to ensure the incident systems are operational.

- Using test equipment:
 1. Measure SWR of antenna systems
 2. Modifications of antenna systems for low SWR.

Completed Date: _____ Evaluator: _____

5.5.5. Recognizing and Eliminating sources of noise affecting communications.

- Noise from generators and inverters and ways to eliminate
- RFI from surrounding radios and ways to eliminate
- Appropriate methods of grounding

5.5.6. Perform operational test of communications systems throughout duration of a simulated incident.

- Demonstrate how to operationally assess distant repeaters
- Demonstrate how to assess remote packet nodes
- Accomplish minor field repair
- Replace and charge a battery in an HT
- Minimize interruptions in system operation

Completed Date: _____ Evaluator: _____

Section 6: Recommended Further Training in EmCOMM & ARES/RACES

6.1 Foremost, a member must have completed all baseline Radio Operator tasks prior to beginning the new recommended training.

- Completion of NIMS IS-800.b, The National Response Framework, an Introduction
- Completion of NIMS IS-300 , Intermediate ICS for expanding Incidents

Note: IS-300 training is coordinated by local EOC agency not FEMA.

6.2 Recommended ARES/RACES Skills-based Task List

6.2.1. Be Self-proficient in, and Supervise Radio Operators to:

- Ensure use of radio/telephone logs.
- ICS-309 Communications Log
- ICS-214 Unit Log
- Ensure proper radio procedures and protocols
- ICS-213 NCR form for internal use
- ICS-213 used for tactical voice traffic
- Properly construct an Airmail/RMS Express Subject Line Date/time group
- Correct use of all Airmail/RMS Templates
- Process ICS-213 presented on USB drive
- Process ICS-213 accessed over LAN
- Access Winlink over Telnet, Packet, and Pactor or (WINMOR)

6.2.2. Be Self-proficient in document use and filing system.

- Property loss/damage reports
- ICS 213, General Message
- ICS 214, Unit Log
- ICS-309, RadioLog
- Agency specific forms
- Within the Airmail or RMS file structure for digital incident traffic

6.2.3. Be Self-proficient in documentation procedures in the event of an emergency situation.

- Incident within an incident
- Emergency messages

6.2.4. Be Self-proficient in County Communications Plan, Review Procedures, and ICS 205 or 217 reviews with incident personnel.

6.2.5. Be Self-proficient in procedures and process to identify and prioritize incoming information and determine appropriate response.

6.2.6. Ensure radios in use by unit or incident personnel are operational (includes battery replacement).

- Tag non-functioning equipment.
- Clone or program radios as necessary.
- Recognize basic communications systems malfunctions (e.g., intermittent repeater transmissions, dead spots, poor quality audio, off-frequency) and alert EC, or EOC technical staff.

6.3 Additional recommended ARES/RACES Knowledge and Task List Recommendations for EC:

- The EC is highly encouraged to complete the FEMA Professional series (IS-139, 230, 235, 240a, 241a, 242a, 244a).

6.3.1. Establish and maintain positive interpersonal and interagency working relationships.

- Get to know the County EM, served agency personnel and regional telecommunications professionals with whom you will be working, and establish close working relationships before an incident occurs.

6.3.2. Evaluate needs, materials, personnel, and training to keep unit operating effectively.

- Manage equipment, materials and supplies required for the unit mission
- Ensure trained personnel are available to support the unit
- Coordinate with the served agencies for any or additional interoperability resources that may be needed.
- Assess current and future tactical communications equipment needs such as power sources, portable antennas and logistics support for extended operations.

6.3.3. Organize and supervise unit's Assistant ECs.

- Brief and keep Assistant EC and key members informed and updated.
- Establish unit time frames and schedules.
- Assign and monitor work assignments.
- Develop team work.
- Provide mentoring as needed.

6.3.4. Participate in served agency and area planning meetings as the technical expert for amateur radio emergency backup communications capability; coordinate with other communications professionals to share information and assure communications interoperability

- Determine the feasibility of providing the required communications support.
- Provide operational and technical information on equipment available to the served agency.
- Provide operational and technical information on communications equipment and systems capabilities and limitations.

6.3.5. Coordinate frequencies, activities, and resources with communications professionals outside of the area.

- Contact adjacent county EC's and communications coordinators, and notify them of incident frequency and other shared resource assignments, as appropriate.
- Provide a copy of the unit's Comm Plan/ICS Form 217 to other agencies or to the EC and/or COML at any nearby locations as necessary to avoid interference.

SLOECC ARES/RACES TRAINING CALENDAR

| Month/date | Topic | Training Leader |
|------------|-------|-----------------|
| January | | |
| February | | |
| March | | |
| April | | |
| May | | |
| June | | |
| July | | |
| August | | |
| September | | |
| October | | |
| November | | |
| December | | |

Acknowledgements:

Oregon Section ARES/RACES, Annex A to the Section Operations Manual, **Section Training Plan** <http://ares.ucem.us/d3web/draft-operations-training-manual.pdf>

Champaign County ARES Training Plan, www.wa9res.org/documents/TrainingPlan.pdf

Arkansas ARES/RACES Training Plan, www.nwahams.com/AR_ARES-RACES_Plan.pdf

A Quick Trainer and Field Resource Guide for the Emergency Communicator,
<http://www.arrl.org>

Additional resources:

Radio Operator Task Book (RADO):

<http://www.nwcg.gov/pms/taskbook/logistics/pms-311-97.pdf>

Incident Communications Manager (INCM):

<http://www.nwcg.gov/pms/taskbook/logistics/pms-311-41.pdf>

Incident Communications Technician (COMT):

<http://www.nwcg.gov/pms/taskbook/logistics/pms-311-96.pdf>
