

USE AND DISTRIBUTION NOTICE

- Santa Clara County RACES authorization is granted to use and duplicate this material as-is as long as this page and the copyright notices on each page are included, acknowledging Santa Clara County ARES/RACES as the holder of the copyright.
- Permission is granted to adapt this presentation to your needs as long as you acknowledge our copyright and include a note similar to "adapted with permission from Santa Clara County ARES/RACES"
- For additional information on training or any of our programs send an email to: info@scc-ares-races.org

Field Operations - Type III Part B & II

COMMUNICATIONS PLAN SCCo ARES/RACES/ACS		1. Incident Name/Location Field Ops Type III Training Class			2. Activation Number TC-26-01T		3. Operational Period Date/Time From Date: 01/03/2026 To Date: 01/03/2026 From Time: 09:00 To Time: 12:00		
4. Communications Resources									
Ch #	Function	Call Sign and/or Sys / Net / Ch / TG Name	Assignment	Rx Freq N / W	Rx Tone or NAC	Tx Freq N / W or + / - / S	Tx Tone or NAC	Mode A,D,M	Remarks
	Tactical		Primary	147.525	N/A	S	N/A	A	Use low power
	Tactical		Backup 1	446.500	N/A	S	N/A	A	Use low power
	Tactical		Backup 2	146.490	N/A	S	N/A	A	Use low power
Test your HT You must use a headset or ear bud									
5. Special Instructions Set your radio to its lowest power setting. Call Net Control using your FCC Call Sign on the primary frequency for a radio check.									
ICS 205 SCCo RACES		6. Prepared by (Communications Unit Leader) Kelly Harrington, KN6DSE			7. Prepared Date/Time 01/03/2026 08:41			8. Page 1 of 1	

See reverse for instructions. All channels are shown as if programmed in a base station, mobile or portable radio. Repeater stations must be programmed with the Rx and Tx reversed.

ICS 205-SCCo ARES/RACES/ACS (rev. 2018-Jul-09)



Field Operations

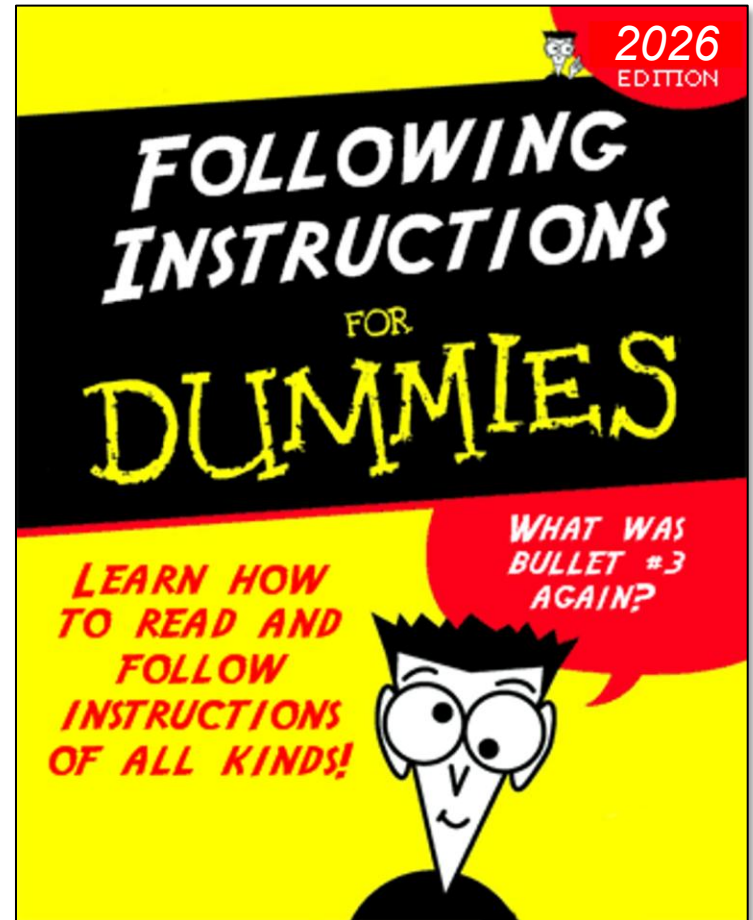
Type III Part B and Type II



Santa Clara County ARES®/RACES
Last Updated 11-August-2026

Housekeeping

- Introductions
- Pen/pencil, paper, course materials
- Cell phones
- Side conversations
- Questions
- Breaks **Water Only in this room**
- Restroom
- In case of emergency
- PARKING – move at first break



Bring your ICS-214 and ICS-211 that you started in the Part A class.

You will need a student number for the exercises. Use your student number from the Part A class.

If you did not attend Part A, please review the slides and complete the ICS-214 and 211 forms from that class. You will be assigned a student number at the beginning of class.

Fictitious Examples Used In Classes

- W6XRL4: Herman Munster
 - Father in 1960's sitcom "The Munsters"
 - Was an aspiring amateur radio operator
 - Call sign: W6XRL4



- XNDEOC: City of Xanadu Emergency Operations Center



Forms and Tactical Call Signs for Exercises

- Take out your partially completed forms from Part A of this class and the other blank forms
 - ICS-211 – from last class
 - ICS-214 – from last class
 - ICS-309 – blank
- Remember your tactical call sign from Part A.
 - Your tactical call sign will be “Student ##”, where “##” is your number.

Student Number

For the in class exercises you will use the Tactical Call (Student XX) you were assigned in last months Field Ops III A class.

If you did not attend the Part A class last month, we will assign you a Tactical Call at the start of class.

Please complete the homework before coming to class.

Learning Objectives (Reminder)



At the end of this two-part course, you should be able to:

- Describe the role of a field operator, including
 - Served agency needs, field assignment types, SCCo ARES/RACES credentialing system
- Explain and perform basic safety procedures
- Properly execute an assignment, including
 - Mobilization, selecting equipment, field operations, dealing with problems, demobilization
- Understand and use field operations checklists

Agenda



Type III, Part A (Reminder):

- Mastering Field Communications
- Supporting Our Served Agencies
- Field Comms Assignments
- Credentials
- Safety
- Simulated deployment
 - Mobilization
 - Setting Up a Field Station

Type III, Part B:

- Review of Part A
- Simulated Deployment (cont.)
 - Type III Field Equipment
 - Type II Field Equipment
 - On-Site Operations
 - Traffic Types
 - Message Passing Intro
 - Advanced Techniques (Type II)
 - Dealing with Problems
 - Demobilization
- Field Ops Checklist

Review:

Field Operations Type III Part A

Review: Communicating

- The definition of “communicate” is:
 - com·mu·ni·cate: to transmit information, thought, or feeling so that it is satisfactorily _____ and _____.
- Field Emergency Communications can involve threats to _____ and _____
- To be effective and efficient in such critical situations, we strive to _____ field communications.

Review: Served Agency Procedures

- Most of our served agencies are required by law to use _____ and _____
- It is important for us to understand these systems because
 - We can be more _____ and _____ at supporting our agencies if we understand how they work
 - Messages are usually addressed to/from _____ positions, which are grouped into these five sections:
_____, _____, _____, _____, and _____
 - Requests for resources move between agencies following the hierarchy defined in _____, which is:
_____ > _____ > _____ > _____ > _____



Equipment for Field Communications, Type III

Standard Go Kit

- 2-hour Carry Kit
 - Keep it nearby
 - Use to make resource net damage reports
- 12-hour Go Kit
 - Needed for any deployment
- Extended Kit
 - 12+ hours
- Includes:
 - X = Required
 - R = Recommended
 - O = Optional
- Always wear a safety vest
 - Unless the served agency has something else to wear

Santa Clara County ARES®/RACES Go Kit Checklists		Revised: 09-Oct-2025
Legend: X = Required for ALL operators (must have in kit at all times) Xn = Required for ALL Credential Type n operators Sn = Required for Shadow, Pn = Required for Packet R = Recommended (likely useful on many assignments) O = Optional (useful on some assignments)		
2-Hour Carry Kit Purpose: To be kept nearby at all times for immediate (within minutes) communication of damage reports during Resource Net Level 1 ops. Also used to remain in contact with Resource Net Level 2 while returning home to retrieve 12-hour Go-Kit.		
Items:		
X	2m/70cm dual-band radio HT recommended (min. 5W on 12V/2.5W on batt) Mobile 25W optional (if vehicle will not be far away) Programmed with Resource Net frequencies	
X	Charged batteries for 2-3 hours of operation	
X	2m/70cm dual-band mobile antenna (mag mount, window mount or existing mobile antenna)	
X	Current SCCo Voice Frequency List	
X	Modified Mercalli (Mike-Mike) scale	
X	Notepad / pens	
X	SCCo ARES/RACES Contact List	
R	Cigarette lighter adapter for HT	
R	Cell phone	
R	Water (16 oz.)	
12-Hour Go Kit Purpose: For fully independent operation; unknown environment (heat, cold, wind, rain); unknown time (day, night, up to 12 hours). Return home to retrieve.		
Equipment		
Portable Radio Equipment:		
X	2m/70cm dual-band handie-talkie (HT) Minimum 5W on 12V/2.5W on batteries [Note 1] Dual-receive recommended,	
S2	A second HT is required	
X	Radio user manual or cheat sheet	
X	Earbud or headphones minimum; headset, earbud/mic, or speaker/mic/earbud, or similar recommended	
X	Charged batteries for 12 hours (min. 3000 mAh) [Note 2]	
X	Power cord adapters – connect HT to power sources: Powerpoles, Cigarette lighter socket, Vehicle battery terminals	
X	Spare fuses (verify types needed for your devices)	
X	Coax adapter: connect HT to coax	
X	Min. 25 feet of 50 Ohm coaxial cable	
S3	Small backpack, vest, chest harness or other similar method for carrying HT while operating portable	
Mobile or Stationary Radio Equipment:		
X2	2m/70cm mobile radio (separate/removable from vehicle) • Programmed with SCC Voice and BBS frequencies • 25W minimum • Dual-receive, cross-band repeat capable • RF Safety Evaluation Record	
X2	Radio user manual or cheat sheet	
X2	Headset (stereo recommended for VFO per ear) w/ inline, hand switch or footswitch PTT	
X2	Battery for 12-hours operation (20 Ah min.; 26 Ah rec.)	
X2	Power cord adapters – connect mobile to power sources: • Powerpoles • Cigarette lighter socket • Vehicle battery terminals	
X2	Powerpole splitter or fused distribution panel	
X2	Spare fuses	
X2	Coax adapter: connect the mobile radio to coax	
X2	Min. 25 add'l feet of 50 Ohm coaxial cable w/barrel conn.	
X2	Extension cord, 3-wire, 3-6 ft., multi-outlet	
O	Extension cord, 3-wire, 50-100 ft.	
Antennas:		
X	Coax adapters: connect coax to existing antenna jack: • BNC plug (male) & BNC socket (female) • UHF plug (PL-259) & UHF socket (SO-239) • N-type plug (male) and N-type socket (female)	
X	2m/70cm dual-band magnetic or window clip mount ant.	
X2	2m/70cm high-gain HT antenna	
X2	2m/70cm dual-band portable base antenna (e.g. roll-up J-pole or other)	
X2	Portable mast (elevates antenna base min. 10 ft.)	
X2	Tripod or other self-supporting base for mast plus weights	
Packet Equipment:		
P2	Laptop with current Outpost and PacketForms installed	
P2	USB flash drive (i.e. USB key) with software	
P2	TNC (may be hardware, software or built into the radio)	
P2	Cables: TNC to radio; TNC to PC	
O	Shade cover for display	
R	Portable printer	
P2	Entire station can operate for min. 1 hr on battery	
Other Communications Gear:		
R	Cell phone & charger and/or cigarette lighter adapter.	
O	FRS/GMRS Radio	
O	Satellite phone	
Tools:		
R	Duct tape	
R	Electrical tape	
Santa Clara County ARES®/RACES		Page 1 of 4

<https://www.scc-ares-races.org/operations/go-kit>

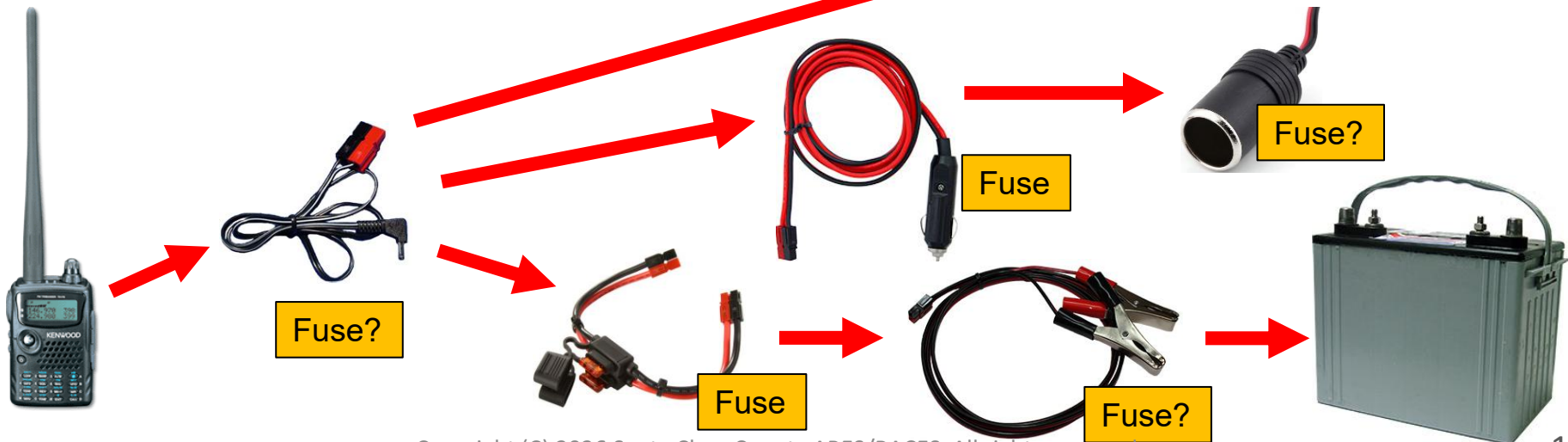
Radio – Portable: “Handie-Talkie” (HT)

- Radio
 - 5 Watts
 - Dual-band (2m, 70cm)
 - Recommended: dual-receive
 - Charged batteries for 12 hours (min. 3000 mAh)
 - Be careful with AA battery packs. On some HTs it will lower the power output to about 1 Watt max!
 - Recommended:
 - After market antenna can be a significant improvement
 - Chest pack or vest pocket to carry radio up high, not at waist
 - “Surveyor” and “Engineer” vests usually have two chest pockets
 - Rubber band(s) for headset plugs on some Yaesu HTs
 - Beware of cheap, non-Part 97 compliant junk radios



Radio Power Adapters

- Required: adapters to get power from three sources
 - 1) Anderson Powerpoles, 2) cigarette lighter socket, 3) car battery terminals
- Many options exist; pick what works for you
- ALWAYS fuse the connection to the power source
- Don't forget spare fuses



HT Headset/Mic Options

- You need to hear and be heard in noisy environments
- Minimum required: earbud or headphones
 - Only improves what you hear, not your ability to be heard by others
- Recommended: headset
 - Alternatives: earbud/mic, speaker/mic/earbud



Headset

- **Usually best** for
 - Hearing
 - Being heard
- Consistent mic position
- Noise cancelling mics available from some manufacturers



Earbud/mic

- Simple, inconspicuous
- Poor mic location, picks up surrounding noise



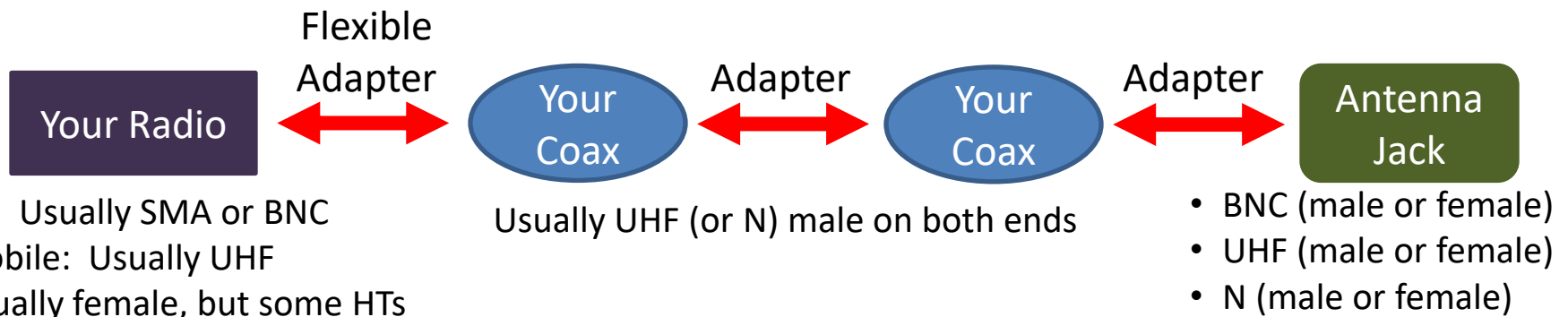
Speaker/mic

- Hard to hear in noisy environment
 - May support attached earbud
- Mic location depends on how used
 - Not ideal if left clipped to clothing

Coax

More Info: Antenna Fundamentals Class

- Need to connect to existing installed antenna
 - Required
 - Minimum 25 feet of 50 ohm coax (50' recommended)
 - Adapters to connect radio, coax to 6 common antenna connector types
 - Recommended
 - 25-50 feet of low-loss (LMR-400 UF equiv.) to reach station
 - When you add an antenna and mast (Field Type II):
 - 25 feet of lightweight (LMR-240 UF or equiv.) to go up antenna mast
 - Sufficient adapters to connect radio, coax(es), antenna



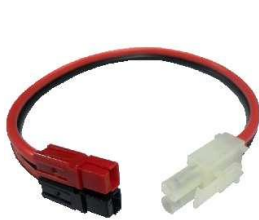


Equipment for Field Communications, Type II

Radio - Mobile



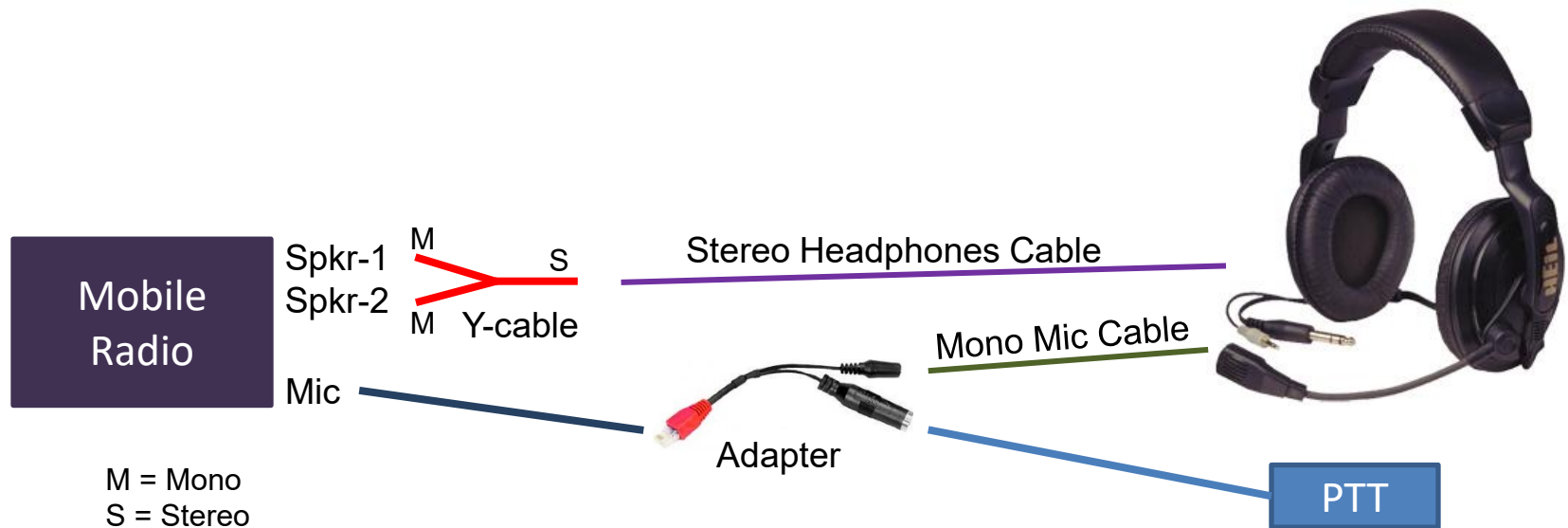
- Minimum 25 Watts (50 Watts recommended)
- Dual band (2m, 70cm)
- Dual-receive
- Cross-band repeat capable (CW-ID recommended)
- Data connector for packet is recommended
- Power adapters (with fuses) for: Anderson Powerpoles, cigarette lighter socket, vehicle battery



<https://www.scc-ares-races.org/operations/vhf-uhf-mobile-voice-radio-considerations.html>

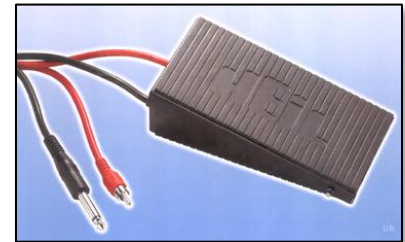
Headset

- Stereo headset is best for dual-receive
- Y-cable needed for most dual speaker-jack mobile radios
- Radio-specific adapter cable needed for external PTT, headset
- Foot switch or hand switch for PTT



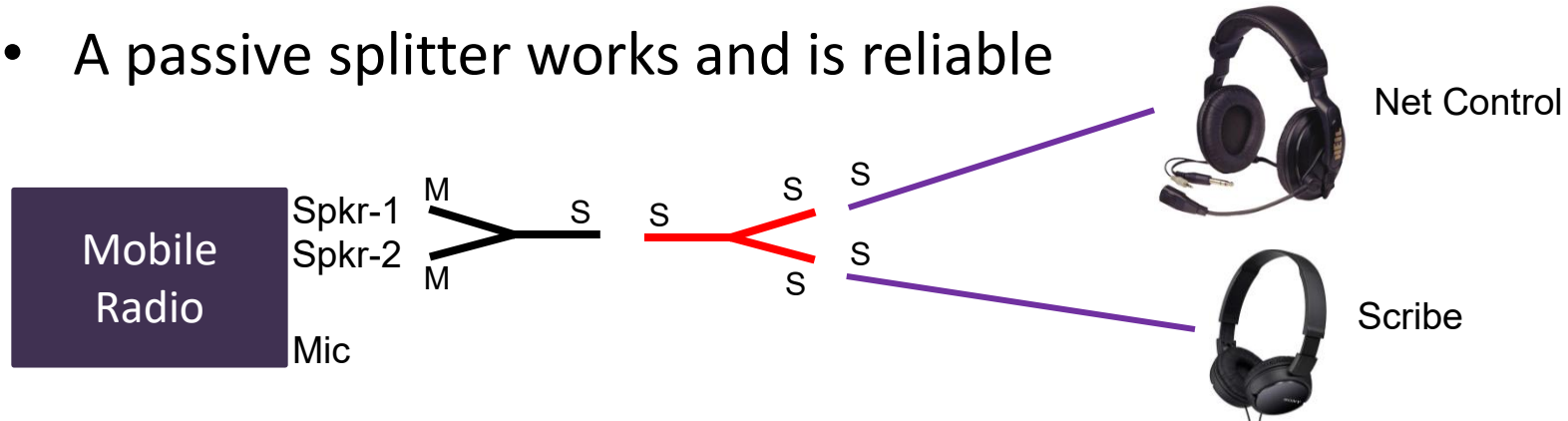
Push-to-Talk (PTT) Options for Headsets

- Headset needs hand or foot-switch for PTT
- Hand switch (usually best for outdoors)
 - Doesn't sit on the ground - good in dirt or rain, vehicle
 - One hand occupied
 - But can now be repositioned; can hold down papers
 - Hard to type and use a computer
- Foot switch (usually best for indoors)
 - Frees both hands for typing, computer logging
 - Beware of hinged, gas-pedal style
 - Ankle fatigue; chasing it around under the desk
 - Round, heavy is preferred by many
 - Stays put, allows different foot positioning, prevents fatigue
 - Local contesting favorite: Linemaster Gem V2 (shown here)
 - Not ideal outdoors (in dirt or rain)

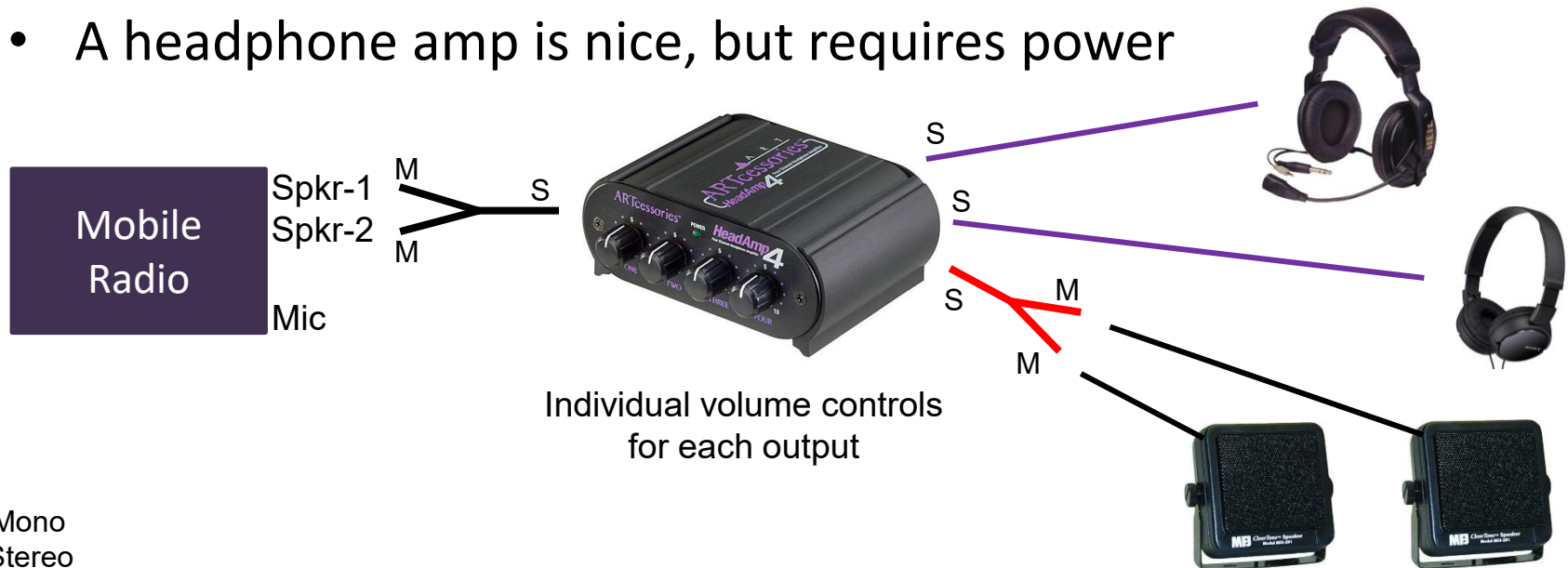


Headset + Headphones and/or Speakers

- A passive splitter works and is reliable



- A headphone amp is nice, but requires power



M = Mono
S = Stereo

Antenna and Mast

More Info: Antenna Fundamentals Class

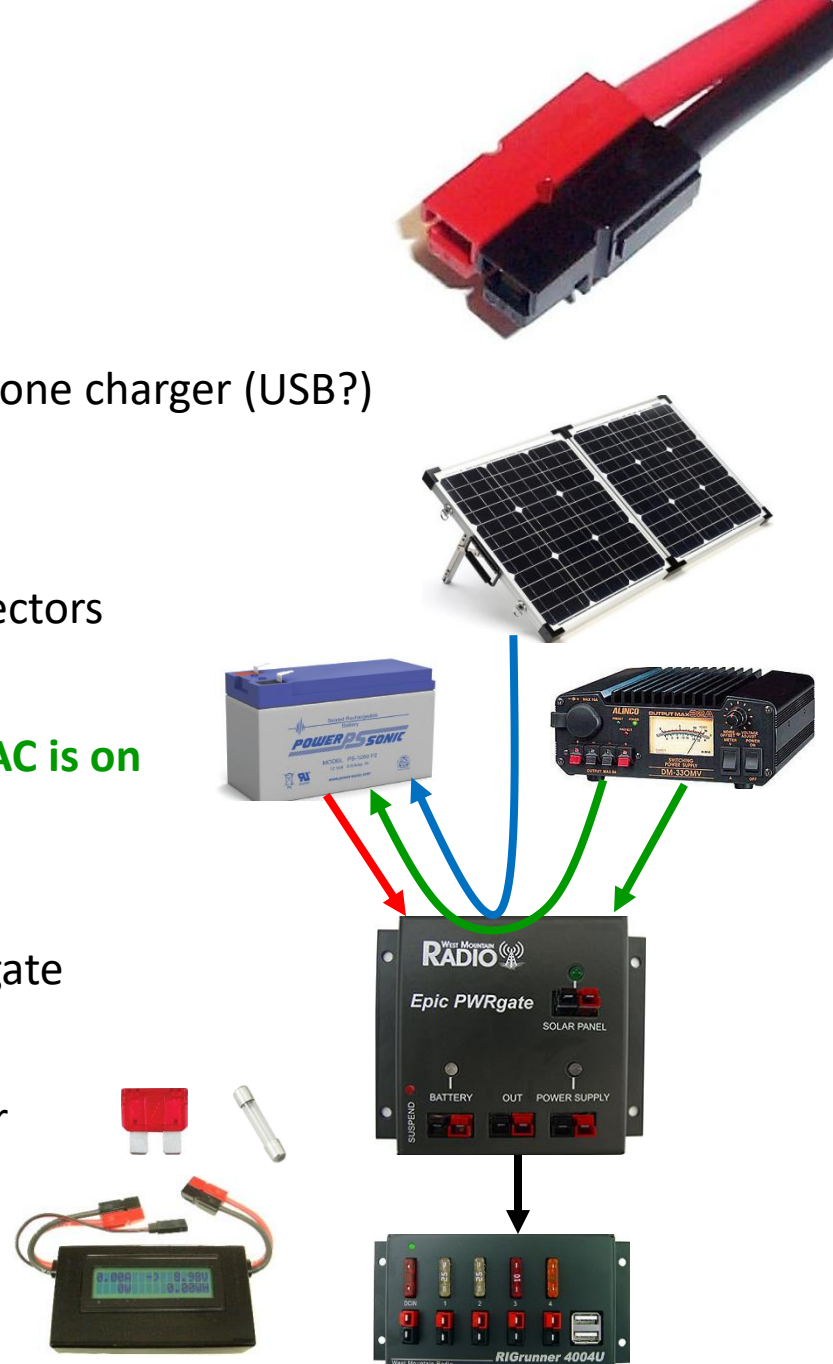
- Mast
 - Telescoping mast is light, compact
 - Minimum: Base of antenna > 10 ft
 - Recommended: 32' puts your antenna above all single story and most two-story buildings
- Antenna
 - Roll-up J-pole, dual-band (2m, 70cm)
- Tripod
 - “Speaker stand” tripods are excellent
 - Use 15+ lb sand bag on each leg
 - Be sure collapsed length fits in your vehicle
- Also helpful
 - Heavy-duty Velcro straps to secure mast to tripod or pop-up tent legs



<https://www.scc-ares-races.org/operations/vhf-uhf-antenna-considerations.html>

Power Distribution

- Power requirements
 - Radio(s), fan, lighting, HT charger, cell phone charger (USB?)
 - Scribe's equipment, others
- DC Power Supply
 - Consider one with multiple output connectors
- Battery charger/battery backup switch
 - Powers radio and charges battery while **AC is on**
 - Switches to battery power if **AC fails**
 - Optional **solar** for battery charging
 - Shown: West Mountain Radio Epic PWRgate
- Fused distribution
 - Shown: West Mountain Radio RigRunner
 - Don't forget the spare fuses!
- An in-line V/A/W meter can be useful



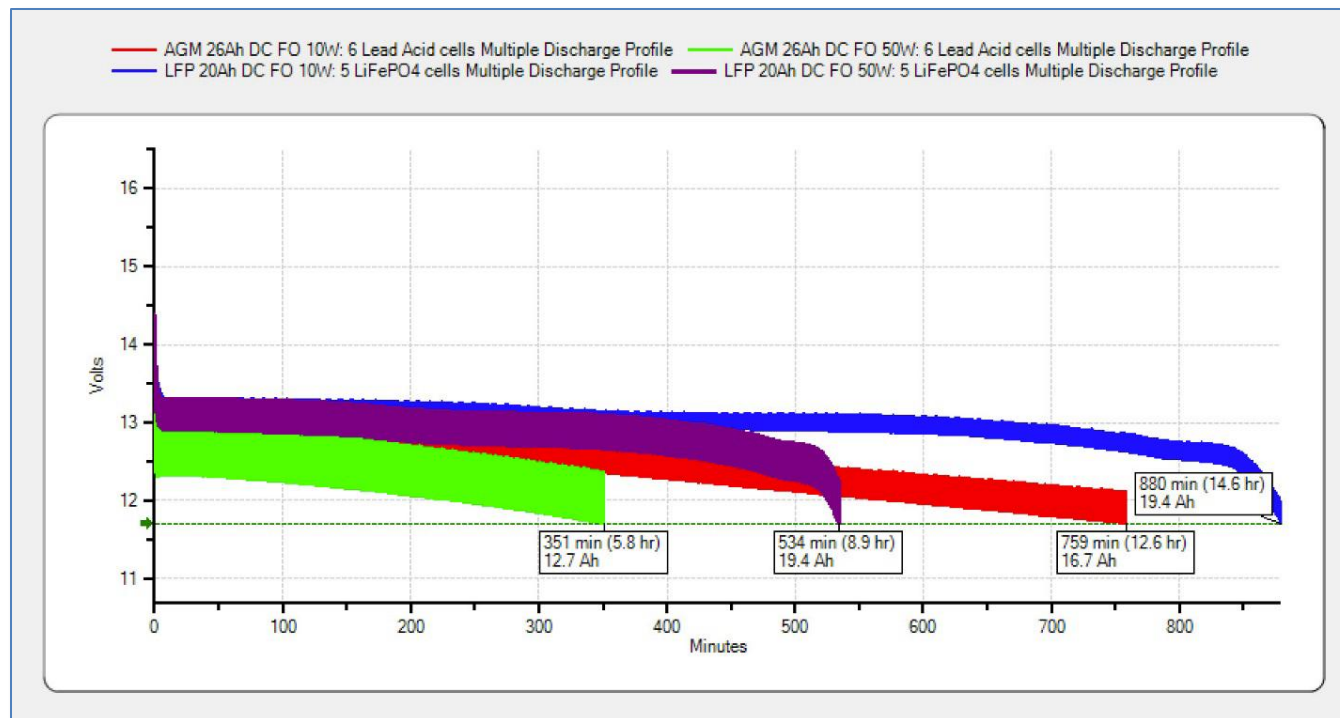
Batteries for Field Operations

- SCCo Go Kit recommended battery size
 - AGM: 20 Ah minimum; 26 Ah recommended
 - LFP (LiFePO4): 20 Ah; No firm requirement yet
- Expected [Busy] Duty Cycle (per hour)
 - 5% idle: 3 minutes
 - Nothing received
 - 20% transmit: 12 minutes
 - Send 2 formal messages
 - Receive two formal messages
 - Send/receive informal traffic
 - 75% receive: 45 minutes
 - Listening to other traffic
- This is for voice field operations.
Net Control and Packet have different duty cycles.



Field Operations Duty Cycle Testing

- Tested: 10 W and 50 W transmit power; AGM and LiFePO4 batteries
- Results: Use 10 W
 - 50 W with 26 Ah AGM battery will not last a full shift
 - 50 W with 20 Ah LFP battery will last 8+ hours



<https://www.scc-ares-races.org/operations/equipment/power/battery>

Battery Runtime Rule of Thumb



- **Recommended size:**
 - AGM: Minimum 20 Ah minimum; 26 Ah Recommended (SCCo Go Kit)
 - LFP (LiFePO4): 20 Ah Recommended
- **Battery size rules of thumb:**
 - AGM: runtime (hr) = 50% of Rated Capacity (Ah) / weighted avg. current (A)
 - LFP: runtime (hr) = Rated Capacity (Ah) / weighted avg. current (A)
- Example: Field Operator field operator using 50 W transmit power
 - Duty cycle = 5% idle @ 0.5A; 20% transmit @ 9.2A; 75% receive @ 0.6A
 - Weighted avg. current = $(0.05)(0.5 \text{ A}) + (0.20)(9.2 \text{ A}) + (0.75)(0.6 \text{ A}) = 2.3 \text{ A}$
- Example: 26 Ah AGM Battery
 - Runtime = $(0.50)(26 \text{ AH}) / (2.3 \text{ A}) = 5.7 \text{ hours}$ (actual test result = 5.8 hours)
- Example: 20 Ah LFP Battery
 - Runtime = $(20 \text{ Ah}) / (2.3 \text{ A}) = 8.7 \text{ hours}$ (actual test result = 8.9 hours)



Operating On-Site, in the Field

Example Deployment - Operations

- Net Check-in
- Logging
- Voice Technique
- Examples

Check-In



- As soon as your station is set up ...
- Check into the assigned net
 - Use phonetics for your call sign since this is the first time net control is hearing it
- If you were assigned a tactical call sign
 - You are checking in as a function or location, not yourself
 - Say: Net Control, <tactical call sign> checking in, <FCC call sign>
 - Example: Net Control, Shelter 1 checking in, W6XRL4
- If you were not assigned a tactical call sign
 - You are checking in as yourself
 - Say: “Net Control, <FCC call sign> checking in”
 - Example: “Net Control, W6XRL4 checking in”
- Update your ICS-214

Exercise: ICS-214 Update

- Exercise:
 - Assume the time is now 09:00
 - You have set up your station
 - You have checked out of the staging net
 - You have checked into the student net
 - Update your ICS-214

The date on your forms are from last month's class, use that date

07/25/2026

Example: Updated ICS-214

6. ACTIVITY LOG	
Time (24:00)	Major Activities & Events / Occasional Messages (indicate From / To / Msg# / Msg Text)
08:00	Assignment: attend Field Ops III/II Training Class. Sheriff's Office
08:05	Depart home, initial odometer 123
08:25	Arrive staging, final odometer 134
08:50	Assignment: participate as student, tactical call "student <your number>"
09:00	Station set up complete; checked out of staging, into student net; see ICS-309

Did you view the ICS-309 Video?

- ICS-309 is used by all field positions except Shadows
 - Checkpoints, rovers, command posts, shelters, hospitals, ...
- Log all communications that involve you / your position
 - Check-in/out
 - Health and welfare checks
 - Other operator to operator traffic
 - Message traffic
- For Resource Net and Staging Net, the ICS-309 is maintained by net control only

Exercise: ICS-309 Communications Log

- You just checked into the student net
- Assume the time is 09:00
- Log your communications

- We are still using the assignment from the Part A class:
- Activation # TC-26-01T
- Use the Operational Period used in last class
MM/DD/YYYY 09:00 to MM/DD/YYYY 12:00

Exercise: ICS-309 Communications Log

COMM Log ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number <i>Field Ops III/II Training Class</i> <i>TC-26-01T</i>		2. Operational Period (Date/Time) <i>MM/DD/YYYY</i> <i>MM/DD/YYYY</i> From: <i>09:00</i> To: <i>12:00</i>	
3. Radio Net Name (for NCOs) or Position/Tactical Call <i>Student <your number></i>				4. Radio Operator (Name, Call Sign) <i><your name>, <your call sign></i>	
5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
<i>09:00</i>			<i>NC</i>		<i>Check-in</i>



Suggestion:

If you leave the field representing you or your position blank, it can make the log a little easier to read as it fills up

Communications Technique



- Verbal communication must be effective, clear and concise
 - Plain English; No 10-codes, Q-codes, etc.
 - Proper (ITU) phonetics, prowords, numbers
 - Follows standard procedures
- Radio technique is effective
 - Proper power levels: repeaters vs. simplex
 - Pause for repeaters, especially when linked
- Written communication is effective, clear, concise, legible
 - Correct forms used for each function; properly completed
- Call signs and tactical calls are used properly

Reference: SCCo Performance Standards, page 7

Methods and Procedures - General

- Operator understands and is able to describe the purpose and appropriate usage of the main nets
 - Resource, Message, Command, Hospital, City, Tactical, Packet, EOC, ...
- Makes proper use of the Resource Net
- Passes messages appropriately using correct ProWords
- Maintains contact with Net Control
- Keeps logs and records correctly
- Follows served agency protocols and procedures
- Provides complete and accurate relief briefings
- Attends debriefing, if one is available

Reference: SCCo Performance Standards, pp 10-13

Responding to Health & Welfare Checks

- Health and Welfare Checks



- Key Points

- Field operators responded with tactical call (good)
 - Identified any problems or needs (none in this case)
 - Ended with FCC call sign, as requested (excellent)

- Note:

- Checkpoint 1A has Yaesu Wires turned on. Notice the beep and the suppression of audio at the beginning of his transmission. The words “Checkpoint 1 Alpha” are completely missed!
 - If you have a Yaesu radio, you MUST disable and avoid activating that terrible “feature”!

Keep Net Control Informed At All Times

- Example: assignment change 
 - Staging has reassigned this operator to a new position
 - He does an excellent job of telling net control:
 - Old assignment (old tactical call sign)
 - New assignment (new tactical call sign)
 - The fact that he is on his way there
 - Ends with FCC call sign
- Example: restroom break 
 - Never leave the net without telling net control
 - Operator arranged for a stand-in, reducing the load on net control
 - Ends with FCC call sign



Traffic Types

Typical for field operators

Traffic Types in the Field

- Operator-to-Operator Traffic
 - Ex: Check-in/out, health & welfare, damage reports, status reports, etc.
- 3rd Party Traffic (messages provided by others that we send)
 - Spoken
 - Message that are told to us; usually brief
 - Ex: “Ask Steve to call Jenny at 867-5309”
 - Common for shadows
 - Written
 - Messages that are written down and handed to us
 - Ex: ICS-213 and other forms, message written on plain paper

Making Reports

- Example: crowd count reports



- Checkpoints report number of rows of people on each side of the block they are monitoring, first left, then right
- Technically, they should use the proword "figure(s)" before saying the number. But the requested information is a number. So, the answer is understood to be a number anyway.

- Key points for both example recordings:

- They are called by their tactical call sign
- They answer as their tactical call sign
- They give the required information, nothing more, nothing less
- They end with their FCC call sign to satisfy the FCC and indicate that the transmission is completed

Requesting / Receiving Information

- Example: directed net, always go through net control
 - Both checkpoint 10 and staging use their tactical call signs to communicate
 - Both stations go through net control
 - Both end their transmissions with their FCC call signs. Excellent.



Exercise: ICS-309 Logging (1)

- At 09:30, the net control at Xanadu EOC conducts a health and welfare check
- At 09:45, you ask Xanadu for some water
- At 09:50, Xanadu tells you that water is on the way
- At 10:00, net control performs a health and welfare check
- Log this message traffic on your ICS-309

Exercise: ICS-309 Logging (1)

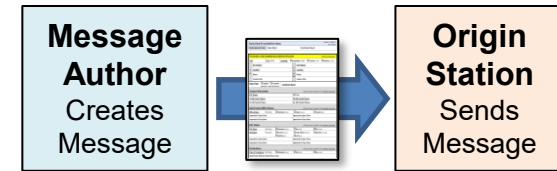
COMM Log ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number		2. Operational Period (Date/Time)	
		<i>Field Ops III/II Training Class</i> <i>TC-26-01T</i>		<i>MM/DD/YYYY MM/DD/YYYY</i> From: <i>09:00</i> To: <i>12:00</i>	
3. Radio Net Name (for NCOs) or Position/Tactical Call				4. Radio Operator (Name, Call Sign)	
<i>Student <your number></i>				<i><your name>, <your call sign></i>	
5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
<i>09:00</i>			<i>NC</i>		<i>Check-in</i>
<i>09:30</i>	<i>NC</i>				<i>H&W</i>
<i>09:45</i>			<i>NC</i>		<i>Requested Water</i>
<i>09:50</i>	<i>NC</i>				<i>Water on the way</i>
<i>10:00</i>	<i>NC</i>				<i>H&W</i>

3rd Party Spoken Messages



- For simple spoken messages, no need for a message form
 - Example: Most messages between shadows are simple, spoken messages
 - “Ask Steven to call Jenny at 867-5309”
- Use your judgement
 - IF message is longer or more complicated
 - Such as: a complicated message that needs to be delivered exactly
 - OR if it needs routing information for delivery outside the radio room
 - Such as: a message to be delivered to an ICS position in an EOC
 - OR if the message should be tracked
 - Such as: the 3rd parties may need to refer to it again
 - THEN write it down on the appropriate form; handle as a written message
- Log all 3rd party spoken messages on an ICS-309 Comm Log
 - (Shadows can log on their ICS-214)

3rd Party Written Messages



- 3rd party written messages always use an appropriate form
 - General messages on ICS-213; resource requests on Resource Request form; etc.
- If the message is not on the appropriate form:
 - Best: Ask the author to use the correct form
 - If they don't have one, provide it to them
 - Else: Transcribe the message to the form, asking the author to clarify and fill in missing information as you go
 - Clarify spelling, other details
 - Last Resort: Staple to an appropriate form only if necessary
 - Papers can become detached, separated
 - Staples, paper clips, and odd paper sizes can cause problems when scanning/copying
- Log all 3rd party written messages on an ICS-309 Comm Log
- See: <https://www.scc-ares-races.org/operations/forms/go-kit>

Forms used for 3rd Party Message Passing

- CPOD Site Information
- CPOD Commodities Update
- Damage Assessment
- Notable Report
- Resource Request
- Road Closure
- Shelter Form
- Situation Report
- Windshield Survey
- Several Hospital/Medical Forms

You should these in your Go-Kit in the required Qtys.

Situation Report

- 3 page form
- Who:
 - From: Jurisdiction
 - To: County EOC (OA)
- What:
 - Incident Details
 - EOC activation Levels
 - Infrastructure Status
 - Unmet Needs
- Instructions
 - Last page

Situation Report 1.1		Veoci: 20250521 DOC: 20260503
Radio Operator Only:	1. Origin Msg #:	2. Destination. Msg #:
This Section to be Completed by Jurisdiction Personnel: (Underlined=Required)		
3. Date:	4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)
T O	6. ICS Position:	F 10. ICS Position:
	7. Location:	R 11. Location:
	8. Name:	O 12. Name:
	9. Contact Info:	M 13. Contact Info:
Overview		
21. Prepared Date:		22. Prepared Time:
23. Jurisdiction:		24. Incident Name:
25. Emergency Declaration: ☐ Unknown ☐ Yes ☐ No		
26. EOC Activation: ☐ a. Normal ☐ c. Duty Officer ☐ e. Monitor ☐ b. Partial ☐ d. Full		
27. Incident Description:		
28. Additional Incident Information:		
Reported By		
31. Prepared By:		32. Contact Number:
33. Email:		
Government Office Status		
41. Office Status ☐ Unknown ☐ Open ☐ Closed		
42. Expected to Open Date:		43. Time:
44. Expected to Close Date:		45. Time:
Approved By		
51. Approved By:		52. Contact Phone:
53. ICS Position:		54. Location:

SCCo ARES/RACES

Page 1 of 4

SCCo ARES/RACES

Page 2 of 4

SCCo ARES/RACES

Page 3 of 4

Shelter Form

- 1 page form
- Who:
 - From: Shelter
 - To: Managing jurisdiction
 - City or County EOC
 - Red Cross
- What:
 - Responding to info requests
 - Submitting updated info
- Instructions
 - Last page

Shelter Form 1.1				Verd: 20250721 DOC: 20260503	
Radio Operator Only:		1. Origin Msg #:	2. Destination. Msg #:		
This Section to be Completed by Jurisdiction Personnel: (Underlined-Required)					
3. Date:		4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)		
T O	6. ICS Position:		F	10. ICS Position:	
	7. Location:		R	11. Location:	
	8. Name:		O	12. Name:	
	9. Contact Info:		M	13. Contact Info:	
General Site Information					
21. Jurisdiction:					
22. Shelter Name:					
23. Location:					
24. Type: ☐ a. Congregate ☐ c. Temporary Evacuation Point ☐ e. Large Animals (multi-select) ☐ b. Non-Congregate ☐ d. Pets Accepted					
25. Shelter Status: ☐ a. Setup in progress, not accepting guests ☐ c. Full, not accepting guests ☐ b. Open, accepting guests ☐ d. Closed					
26. Resources: ☐ a. Warming Center ☐ c. Food & Drink (multi-select) ☐ b. Cooling Center ☐ d. Charging Stations					
27. Notes:					
28. ADA Compliant: ☐ Yes ☐ No			29. Pets Allowed: ☐ Yes ☐ No		
30. Maximum Capacity:		31. Total Registered:		32. Cot Numbers:	
33. AFN Considerations:					
Contact Information					
41. Managed By: ☐ a. American Red Cross ☐ c. Government ☐ e. Other ☐ b. Private ☐ d. Community					
42. Primary Contact Name:				43. Primary Contact Phone Number:	
44. Primary Contact Email:					
Radio Operator Only:					
Relay:		Rcvd:		Sent:	
Name:		Call Sign:		Date:	Time (24hr):

SCCo ARES/RACES

Page 1 of 2

Resource Request

- 2 page form
- Used to request non-mutual aid resources from the current jurisdiction or site
 - Not for Law, Fire, EMS, or RACES mutual aid
- Normally sent to County OA
- Other uses
 - County-managed shelter or unincorporated area command post
 - Some cities for internal requests
- Instructions
 - Last page

Resource Request 1.1		Verd: 20250715 DOC: 20260503	
Radio Operator Only:		1. Origin Msg #:	2. Destination, Msg #:
This Section to be Completed by Jurisdiction Personnel: (Underlined=Required)			
3. Date:	4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)	
T O	6. ICS Position:	F	10. ICS Position:
	7. Location:	R	11. Location:
	8. Name:	O	12. Name:
	9. Contact Info:	M	13. Contact Info:
Resource Order			
21. Title:			
22. Requesting Agency:			
23. Date:		24. Time:	
Item 1	31a. Item Name:		31b. Quantity Requested:
	31c. Description:		
Item 2	32a. Item Name:		32b. Quantity Requested:
	32c. Description:		
Item 3	33a. Item Name:		33b. Quantity Requested:
	33c. Description:		
Item 4	34a. Item Name:		34b. Quantity Requested:
	34c. Description:		
Item 5	35a. Item Name:		35b. Quantity Requested:
	35c. Description:		
Item 6	36a. Item Name:		36b. Quantity Requested:
	36c. Description:		
36d. Includes Items for Demobilization? ☐ Yes ☐ No			

SCCo ARES/RACES

Page 1 of 3

Page 2 of 3

Allied Health Status

- 1 page form
- Who
 - From: Allied Health Facility
 - Skilled nursing, assisted living, dialysis, out-patient surgical, clinic, ...
 - To: Public Health or EMS
- What:
 - Responding to request for bed counts
 - Submitting updated general info
- Instructions
 - Last page

Allied Health Status Report 3.0						PHDOC: March 2026 WORD: 20260506
Radio Operator Only:		1. Origin Msg #:		2. Destination Msg #:		
This Section to be Completed by Medical Facility Personnel: (Underlined=Required)						
3. Date:		4. Time (24hr):		5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)		
T O	6. ICS Position:			F R O M	10. ICS Position:	
	7. Location:				11. Location:	
	8. Name:				12. Name:	
	9. Contact Info:				13. Contact Info:	
Facility Status						
21. Facility Name:				22. Facility Type:		
23. EOC Status: (Pick One) ☐ a. Activated ☐ b. Monitoring ☐ c. Not Activated						
24. Operational Status: (Pick One) ☐ a. Fully Operational ☐ b. Limited Services ☐ c. Closed ☐ d. Evacuating ☐ e. Shelter in Place						
25. If you are not fully operational, please indicate additional details:						
Facility Contact Information						
31. Facility EOC: (Phone #, Fax, Email)						
32. Facility Medical Health Branch / Public Health Liaison: (Name, Phone #, Email)						
33. Facility Information Officer: (Name, Phone #, Email)						
Facility Patient Flow Information						
41. Current Census		a. Total Residents:		b. Patients Currently on Site:		
42. Patients Pending Evacuation:				43. Patients Transferred Out:		
44. Incident-Related Injuries (If Applicable):						
45. Other Patient Care Impacts:						
SNF Bed Status by Care Type * Surge: # of beds in addition to vacant available beds						
	Staffed Beds M	Staffed Beds F	Vacant Beds M	Vacant Beds F	* Surge #	Accepting Admissions (Yes, No, Limited)
50. Skilled Nursing	a.	b.	c.	d.	e.	f.
51. Assisted Living	a.	b.	c.	d.	e.	f.
52. Sub-Acute	a.	b.	c.	d.	e.	f.
53. Alzheimers/Dementia	a.	b.	c.	d.	e.	f.
54. Pediatric Sub-Acute	a.	b.	c.	d.	e.	f.
55. Psychiatric	a.	b.	c.	d.	e.	f.

SCCo ARES/RACES

Page 1 of 3

Other (Less Common) Forms

- RACES Mutual Aid Request
 - Request RACES Radio Operators via Mutual Aid from the County
- Hospital Forms
 - HAvBed Report, Hospital Status
- City/Agency specific
 - CERT Damage Assessment
 - 9-1-1 forms
- Vendor-specific
 - Food orders, Equipment orders
- In general, use the most appropriate form for the specific message. Otherwise, use an ICS-213 Message form.

- Any general message that isn't better suited for a more specific form
- If someone hands you a message on a scrap of paper, politely ask that they fill in an ICS-213
 - If they refuse, do it for them!
 - Ask them to check it for accuracy.
- Instructions
 - On last page

SCCo ARES/RACES Page 1 of 2

What is Radio Routing Info?

- The extra information that a radio operator needs to send, deliver, and track a message
 - Message Numbers
 - Date, Time, Handling Order
 - To/From
 - Radio Operator Info

ICS-213 Message Form 2.2			
Radio Operator Only:		1. Origin Msg #:	2. Destination Msg #:
This Section to be Completed by Sending Agency:			
3. Date:	4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)	
T O	6. ICS Position:	F R O M	10. ICS Position:
	7. Location:		11. Location:
	8. Name:		12. Name:
	9. Contact Info:		13. Contact Info:
This message requests you to:		14. Take Action: ☐ Yes ☐ No	
		15. Reply: ☐ Yes ☐ No	16. Reply By:
Message			
21. Subject:			
22. Reference: (e.g. number of earlier message)			
23. Message: (KEEP MESSAGE BRIEF)			
Radio Operator Only: (Underlined=Required)			
Relay:	Rcvd:	Sent:	
Name:	Call Sign:	Date:	Time:

Message Number Fields on Forms

Example: Shelter A1 sends to Xanadu EOC

- **Origin Station:** assigns origin msg. number; sends message

Radio Operator Only:	1. Origin Msg #: SA1-1001	2. Destination Msg #:
----------------------	----------------------------------	-----------------------

- **Destination Station:** receives message; adds destination msg. number; provides that msg. number to Origin Station

Radio Operator Only:	1. Origin Msg #: SA1-1001	2. Destination Msg #: XND-4321
----------------------	----------------------------------	---------------------------------------

- **Origin Station:** updates message form with destination msg. #

Radio Operator Only:	1. Origin Msg #: SA1-1001	2. Destination Msg #: XND-4321
----------------------	----------------------------------	---------------------------------------

Message Prioritization

- Prioritize messages by:
 - Handling Order
 - Date
 - Time
 - Set by message author (3rd party)

3. <u>Date</u> : 2	4. <u>Time</u> : 3	5. <u>Handling</u> : 1 ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)
---------------------------	---------------------------	---

3rd Party Message Addressing

- Messages are addressed TO and FROM ICS Positions and Locations
 - These are required fields on all messages
- Individual names and contact info are optional fields and are seldom used

T O	6. <u>ICS Position:</u>	F R O M	10. <u>ICS Position:</u>
	7. <u>Location:</u>		11. <u>Location:</u>
	8. Name:		12. Name:
	9. Contact Info:		13. Contact Info:

What if the Routing Information is Missing?

- Handling Order
- To ICS Position
- To Location

This Section to be Completed by Jurisdiction Personnel: (Underlined=Required)			
3. Date:		4. Time:	
5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)			
T O	6. ICS Position:	F	10. ICS Position:
	7. Location:	R	11. Location:
	8. Name:	O	12. Name:
	9. Contact Info:	M	13. Contact Info:

- These forms are normally sent over the Internet.
- The message author often does not know where the form goes.

Shelter Form 1.1				Verdi: 20250721 DOC: 20260503	
Radio Operator Only:		1. Origin Msg #:		2. Destination, Msg #:	
This Section to be Completed by Jurisdiction Personnel: (Underlined=Required)					
3. Date:		4. Time:		5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)	
T O	6. ICS Position:	F	10. ICS Position:		
	7. Location:	R	11. Location:		
	8. Name:	O	12. Name:		
	9. Contact Info:	M	13. Contact Info:		
General Site Information					
21. Jurisdiction:					
22. Shelter Name:					
23. Location:					
24. Type: ☐ a. Congregate ☐ c. Temporary Evacuation Point ☐ e. Large Animals (multi-select) ☐ b. Non-Congregate ☐ d. Pets Accepted					
25. Shelter Status: ☐ a. Setup in progress, not accepting guests ☐ c. Full, not accepting guests ☐ b. Open, accepting guests ☐ d. Closed					
26. Resources: ☐ a. Warming Center ☐ c. Food & Drink (multi-select) ☐ b. Cooling Center ☐ d. Charging Stations					
27. Notes:					
28. ADA Compliant: ☐ Yes ☐ No					
29. Pets Allowed: ☐ Yes ☐ No					
30. Maximum Capacity:		31. Total Registered:		32. Cot Numbers:	
33. APN Considerations:					
Contact Information					
41. Managed By: ☐ a. American Red Cross ☐ c. Government ☐ e. Other ☐ b. Private ☐ d. Community					
42. Primary Contact Name:				43. Primary Contact Phone Number:	
44. Primary Contact Email:					
Radio Operator Only:					
Relay:		Rcvd:		Sent:	
Name:		Call Sign:		Date:	
				Time (24hr):	
SCCo ARES/RACES					

Recommended Form Routing Sheet

- Recommended values for key form fields
 - Handling Order
 - To Position/Location
- Can help get forms to the right place faster when sent by radio
- 3 pages
 - Pg 1 & 2 is General EOC Forms and RACES Mutual Aid Request
 - Pg 3 is Medical forms

SCCo ARES/RACES Recommended Form Routing			
Usage:			
- This cheat sheet summarizes the recommended Handling, To Location, and To ICS Position when sending official forms via amateur radio. - The message author can select whatever Handling Order, To Location and ICS Position (s)he chooses for each message. Sending: As a general rule, address a message to the most specific ICS position that is staffed at the destination location. If the specified unit is not staffed, send it to the branch. If the branch is not staffed, send it to the section. Delivering: As a general rule, deliver the message to the leader of the "To ICS Position" identified in the message: Unit Leader, Branch Director, Section Chief, or their Deputy. If that position is not staffed or available, deliver to the next higher position in the ICS hierarchy shown below.			
Form Type	Handling	To Location **	To ICS Position **
General EOC			
ICS-213 Message Form	Author defined	Author defined	Author defined
CPOD Site Ino CPOD Commodities	Routine (<2 hrs)	County EOC	CPOD Unit Else: Mass Care & Emerg. Asst. Branch Else: Operations
Damage Assessment	Author defined Else: Routine (<2 hrs)	For city-managed: City EOC For county-managed: County EOC	Damage/Safety Assessment Group Else: Construction & Eng. Branch Else: Operations
Notable Report	If Severity on form is:	The Handling is:	County EOC
	High	Immediate (ASAP)	
	Medium	Priority (<1 hr)	
	Low	Routine (<2 hrs)	Situational Analysis Unit Else: Common Operating Picture Spec. Else: Planning
Resource Request	If Priority on form is "Urgent": Immediate (ASAP) Else: Routine (<2 hrs)	County EOC	Resource Status & Tracking Unit Else: Supply Branch Else: Logistics
Road Closure	Author defined Else: Routine (<2 hrs)	County EOC	Public Works Group Else: Construction & Eng. Branch Else: Operations
Shelter	Priority (<1 hr)	For city-managed: City EOC For county-managed: County EOC	Care & Shelter Unit Else: Mass Care & Emerg. Asst. Branch Else: Operations

Santa Clara County ARES/RACES

Revised: 20260410

Page 1 of 3

<https://www.scc-ares-races.org/operations/forms/go-kit/routing>

What About Non-Standard Forms?

- Non-standard forms may be missing message number, prioritization, and addressing fields

Lost Child/Parent Data Collection Sheet

Time: _____ Station Reporting: _____ Contacted by: Father Mother Child _____
other

Child Information: Found Lost

Name: _____ Male Female Age: _____
First last

Clothing: _____
top bottom hat

Description: _____
Race Hair color height weight

Last Seen: _____ Time Last Seen: _____
Location

Parent Information

Father: _____ Station with Father: _____
First last

Father Location: _____ Cell Phone: _____

Mother: _____ Station with Mother: _____
First last

Mother Location: _____ Cell Phone: _____

Search Log

Time	Notes

Time Found Child Parent: _____ Found By: _____ Location: _____
Station

Time Reunited: _____ Location: _____

18

Radio Routing Slip

- Like a fax cover sheet or departmental routing slip
- A place to put the radio routing info if the form doesn't have those fields
 - Message Numbers
 - Date, Time, Handling Order
 - To/From
 - Reference info about the message
 - Form Type
 - Topic/Subject of message
 - Radio Operator Info

Santa Clara County RACES -- Radio Routing Slip 1.1				Rev: 20260525
Radio Operator Only:		1. Origin Msg #:	2. Destination Msg #:	
This Section to be Completed by Message Author/Creator: (Underlined=Required)				
3. Date:		4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)	
T O	6. ICS Position:		F R O M	10. ICS Position:
	7. Location:			11. Location:
	8. Name:			12. Name:
	9. Contact Info:			13. Contact Info:
Form:		14. Type:	15. Topic:	
Instructions for Message Author/Creator: 1. Complete section above, surrounded by BOLD line (see instructions on back) 2. Fill in all Required fields 3. Attach to the front of a form to be sent via radio 4. Deliver to radio operator for transmission				
Radio Operator Only:				
Relay:		Rcvd:	Sent:	
Name:		Call Sign:	Date:	Time (24hr):

SCCo ARES/RACES Radio Routing Slip

Page 1 of 2

When/How To Use a Radio Routing Slip

- When sending or receiving a form that does not contain radio routing information
- It is NOT a substitute for the ICS-213
 - NOT a (short) message form
 - Do NOT write a message on the routing slip
- Attach to the front of the form being sent/received
- Write Origin Msg Nbr on top right of form being sent/received
- Enter Form Type and Topic (Subject) on the Routing Slip

Lost Child/Parent Data Collection Sheet

Santa Clara County RACES -- Radio Routing Slip 1.1 Rev: 20260525

Radio Operator Only: 1. Origin Msg #: 2. Destination Msg #:

This Section to be Completed by Message Author/Creator: (Underlined=Required)

3. Date:	4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)
6. ICS Position:	7. Location:	8. Name:
9. Contact Info:	10. ICS Position:	11. Location:
	12. Name:	13. Contact Info:
Form:	14. Type:	15. Topic:

Instructions for Message Author/Creator:

1. Complete section above, surrounded by BOLD line (see instructions on back)
2. Fill in all Required fields
3. Attach to the front of a form to be sent via radio
4. Deliver to radio operator for transmission

Radio Operator Only:

Relay:	Rcvd:	Sent:
Name:	Call Sign:	Date:
		Time (24hr):

SCCo ARES/RACES Radio Routing Slip

Page 1 of 2

Form Handling Exercise

- For each of these forms:
 - Shelter Form (city managed)
 - Allied Health Status Report (PHDOC open)
 - Resource Request (Priority = Medium)
 - ICS-213 Message Form
 - Situation report
 - Donut Form

Shelter Form 1.1				Veoci: 20250721 DOC: 20260503	
Radio Operator Only:		1. Origin Msg #:	2. Destination. Msg #:		
This Section to be Completed by Jurisdiction Personnel: (Underlined-Required)					
3. Date:		4. Time:	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)		
T O	6. ICS Position:		F 10. ICS Position:		
	7. Location:		R 11. Location:		
	8. Name:		O 12. Name:		
	9. Contact Info:		M 13. Contact Info:		
General Site Information					
21. Jurisdiction:					
22. Shelter Name:					
23. Location:					
24. Type: ☐ a. Congregate ☐ c. Temporary Evacuation Point ☐ e. Large Animals (multi-select) ☐ b. Non-Congregate ☐ d. Pets Accepted					
25. Shelter Status: ☐ a. Setup in progress, not accepting guests ☐ c. Full, not accepting guests (multi-select) ☐ b. Open, accepting guests ☐ d. Closed					
26. Resources: ☐ a. Warming Center ☐ c. Food & Drink (multi-select) ☐ b. Cooling Center ☐ d. Charging Stations					
27. Notes:					
28. ADA Compliant: ☐ Yes ☐ No			29. Pets Allowed: ☐ Yes ☐ No		
30. Maximum Capacity:		31. Total Registered:		32. Cot Numbers:	
33. AFN Considerations:					
Contact Information					
41. Managed By: ☐ a. American Red Cross ☐ c. Government ☐ e. Other ☐ b. Private ☐ d. Community					
42. Primary Contact Name:			43. Primary Contact Phone Number:		
44. Primary Contact Email:					
Radio Operator Only:					
Relay: Rcvd:			Sent:		
Name:		Call Sign:		Date:	Time (24hr):
SCCo ARES/RACES					
Page 1 of 2					

- What is the recommended Handling?
- What is the recommended To Location?
- What is the recommended To Position?



Message Passing Intro

A very basic intro

Messages Are Provided To You

- As radio operators we do not generate the 3rd party messages
- You will be provided the message contents by someone from the served agency or evaluator or supervisor for drills.
- You will give all received 3rd party messages to a designated person at the served agency
- You should **not** create 3rd party messages during a drill, exercise, credential evaluation, or real activation unless specifically asked to do so by your supervisor

Message Initiation

- Step 1: Announce quantity and handling order
 - Sender calls receiver (Example: Sender is Shelter 1; Receiver is Net Control)
 - “Net Control, I have 2 Priority messages for you”
 - “Net Control, I have 1 Immediate and 1 Routine message for you”
 - Receiver prioritizes by handling order
 - “Shelter 1, go ahead with your Immediate message”
- Step 2: Announce message type [and need for routing slip]
 - Sender tells receiver
 - “Message type is ICS-213 version 2.3”
 - “Message type is Shelter Form version 1.1”
 - “Message type is Donut Form with routing slip”
 - Receiver readies the right form, then:
 - “Go ahead” or “Go”
- Step 3: Send the message as usual
 - Five groups/fields at a time, starting with “Field 1...”

Message Passing Demonstration

ICS-213 Message Form 2.3				Word: 20260512	
Radio Operator Only:		1. Origin Msg #:		2. Destination Msg #:	
This Section to be Completed by Sending Agency: (Underlined=Required)					
3. <u>Date</u> :		4. <u>Time</u> :		5. <u>Handling</u> : ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☐ Routine (<2 hr)	
T O	6. <u>ICS Position</u> :		F R O M	10. <u>ICS Position</u> :	
	7. <u>Location</u> :			11. <u>Location</u> :	
	8. Name:			12. Name:	
	9. Contact Info:			13. Contact Info:	
This message requests you to:		14. Take Action: ☐ Yes ☐ No			
		15. Reply: ☐ Yes ☐ No		16. Reply By:	
Message					
21. <u>Subject</u> :					
22. <u>Reference</u> : (e.g. number of earlier message)					
23. <u>Message</u> : (KEEP MESSAGE BRIEF)					

Message Passing Training/Practice

- **Message Passing Class**

- Message Passing is what we do; it's a critical skill
- A separate class focuses solely on message passing technique
- Be sure you attend at least every two years!
 - The best operators attend every year – it's THAT important!
- **Next Class:** January 2027
- Review *Message Handling Procedures* Document
<https://www.scc-ares-races.org/operations/voice>

- **Practice**

- <https://www.scc-ares-races.org> > Training > Practice Opportunities
- **On Air Practice from Home**
 - **Quarterly Training Net**
3rd Tuesday of first month of each quarter @ 20:30, after SVECS net
On Resource Net Repeaters
Sign-up on web site

- **Other Drills and Exercises**

Message Logging

- Assume you sent this message to Xanadu EOC
- The XX in the Message Number is your Student # (SXX)
- Assume Xanadu EOC (receiver) assigns message number: XND-205
- The time is now 10:10
- Log it! On which form?

ICS-213 Message Form 2.3				Word: 20260512	
Radio Operator Only:		1. Origin Msg #: <u>SXX-100</u>	2. Destination Msg #: <u>XND-205</u>		
This Section to be Completed by Sending Agency: (Underlined=Required)					
3. Date: <u><today></u>		4. Time: <u>1005</u>	5. Handling: ☐ Immediate (ASAP) ☐ Priority (<1 hr) ☒ Routine (<2 hr)		
T O	6. ICS Position: <u>Situation Status Unit</u>		F R O M	10. ICS Position: <u>Instructor</u>	
	7. Location: <u>Xanadu EOC</u>			11. Location: <u><location of class></u>	
	8. Name:			12. Name:	
	9. Contact Info:			13. Contact Info:	
This message requests you to:			14. Take Action: ☐ Yes ☒ No		
			15. Reply: ☐ Yes ☒ No		
			16. Reply By:		
Message					
21. Subject: <u>Classroom Status</u>					
22. Reference: (e.g. number of earlier message)					
23. Message: (KEEP MESSAGE BRIEF) <u>Field Operations Type III B and Type 2 is underway. Anticipate completion by 1230 hours. Will call Jenny at 408-867-5309 when done.</u>					

Radio Operator Only:				(Underlined=Required)	
Relay:	Rcvd:	Sent:			
Name:	Call Sign:	Date:	Time:		

SCCo ARES/RACES

Page 1 of 2

Exercise: ICS-309 Logging (2)

COMM Log ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number <i>Field Ops III/II Training Class</i> <i>TC-26-01T</i>		2. Operational Period (Date/Time) <i>MM/DD/YYYY</i> <i>MM/DD/YYYY</i> From: <i>09:00</i> To: <i>12:00</i>	
3. Radio Net Name (for NCOs) or Position/Tactical Call <i>Student <your number></i>				4. Radio Operator (Name, Call Sign) <i><your name>, <your call sign></i>	
5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
<i>09:00</i>			<i>NC</i>		<i>Check-in</i>
<i>09:30</i>	<i>NC</i>				<i>H&W</i>
<i>09:45</i>			<i>NC</i>		<i>Requested Water</i>
<i>09:50</i>	<i>NC</i>				<i>Water on the way</i>
<i>10:00</i>	<i>NC</i>				<i>H&W</i>
<i>10:10</i>		<i>S##-100</i>	<i>NC</i>	<i>XND-205</i>	<i>[213] Classroom Status</i>

Exercise: ICS-309 Logging (3)

- At 10:20, your Instructor has provided a Resource Request form asking for more donuts for you to send.
- Your message number is S##-101. Xanadu EOC's message number is XND-206.
- Log it on your ICS-309.

Exercise: ICS-309 Logging (3)

COMM Log ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number <i>Field Ops III/II Training Class</i> <i>TC-26-01T</i>		2. Operational Period (Date/Time) <i>MM/DD/YYYY MM/DD/YYYY</i> From: <i>09:00</i> To: <i>12:00</i>	
3. Radio Net Name (for NCOs) or Position/Tactical Call <i>Student <your number></i>				4. Radio Operator (Name, Call Sign) <i><your name>, <your call sign></i>	
5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
<i>09:00</i>			<i>NC</i>		<i>Check-in</i>
<i>09:30</i>	<i>NC</i>				<i>H&W</i>
<i>09:45</i>			<i>NC</i>		<i>Requested Water</i>
<i>09:50</i>	<i>NC</i>				<i>Water on the way</i>
<i>10:00</i>	<i>NC</i>				<i>H&W</i>
<i>10:10</i>		<i>S##-100</i>	<i>NC</i>	<i>XND-205</i>	<i>[213] Classroom Status</i>
<i>10:20</i>		<i>S##-101</i>	<i>NC</i>	<i>XND-206</i>	<i>[Res. Req.] More donuts</i>

Exercise: ICS-309 Logging (4)

- At 10:30, Net Control performs a health and welfare check
- At 10:45, Xanadu sends you an ICS-213 Message form with a subject of “Donut Status”. Their message number is XND-207. Your Destination Message Number is SXX-102.
- Log these messages.

Exercise: ICS-309 Logging (4)

COMM Log ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number <i>Field Ops III/II Training Class</i> <i>TC-26-01T</i>		2. Operational Period (Date/Time) <i>MM/DD/YYYY</i> <i>MM/DD/YYYY</i> From: <i>09:00</i> To: <i>12:00</i>	
3. Radio Net Name (for NCOs) or Position/Tactical Call <i>Student <your number></i>			4. Radio Operator (Name, Call Sign) <i><your name>, <your call sign></i>		
5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
<i>09:00</i>	<i>S##</i>		<i>NC</i>		<i>Check-in</i>
<i>09:30</i>	<i>NC</i>		<i>S##</i>		<i>H&W</i>
<i>09:45</i>	<i>S##</i>		<i>NC</i>		<i>Requested Water</i>
<i>09:50</i>	<i>NC</i>		<i>S##</i>		<i>Water on the way</i>
<i>10:00</i>	<i>NC</i>		<i>S##</i>		<i>H&W</i>
<i>10:10</i>	<i>S##</i>	<i>S##-100</i>	<i>NC</i>	<i>XND-205</i>	<i>[213] Classroom Status</i>
<i>10:20</i>	<i>S##</i>	<i>S##-101</i>	<i>NC</i>	<i>XND-206</i>	<i>[Res. Req.] More donuts</i>
<i>10:30</i>	<i>NC</i>		<i>S##</i>		<i>H&W</i>
<i>10:45</i>	<i>NC</i>	<i>XND-207</i>	<i>S##</i>	<i>S##-102</i>	<i>[213] Donut status</i>

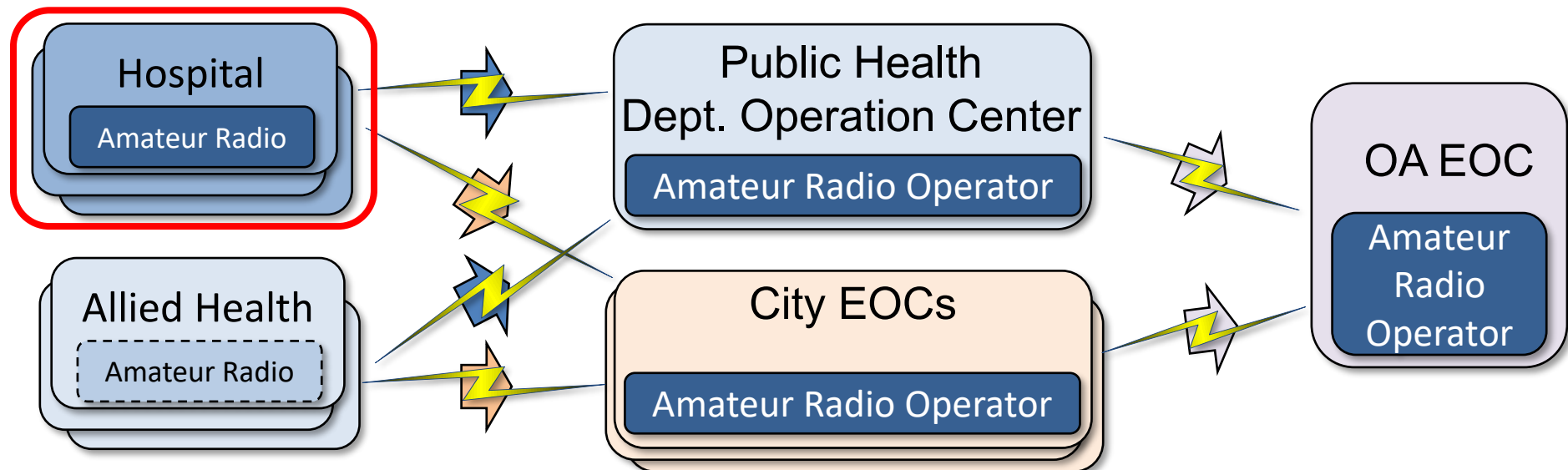


Advanced Techniques

For Field Operator Type II Credential

Operating on Two Nets Simultaneously

- Some field assignments require simultaneous operation on two nets
- Example:
 - Hospital Net: Hospitals to PHDOC; medical issues
 - City Net: Municipal issues, such as fire, law, utilities, public works

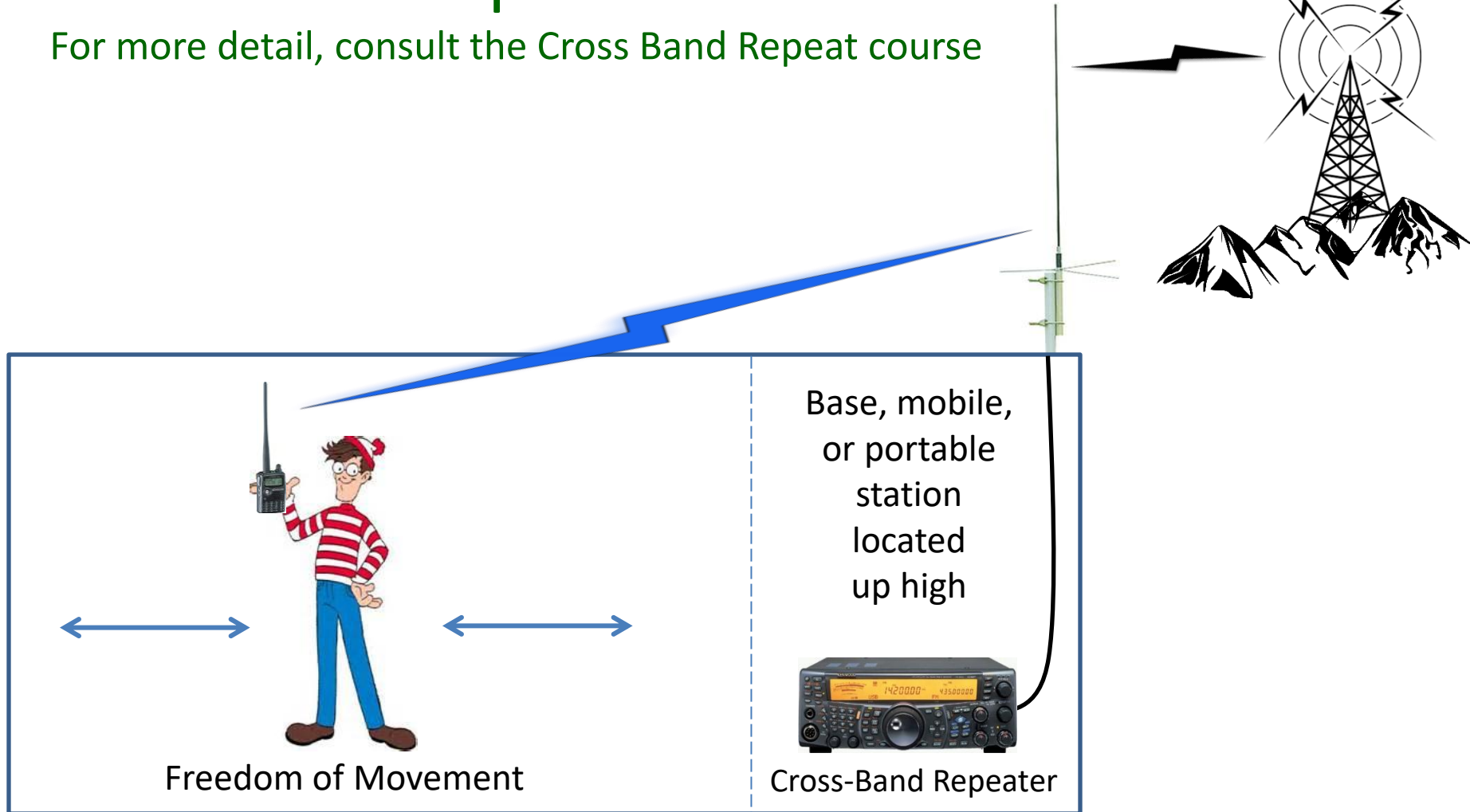


Operating on Two Nets Simultaneously

- Establish your primary net
 - All other things being equal, which net will you answer first?
- Use at least a dual-receive mobile radio, stereo headphones
 - If possible, use a separate radio for the secondary net so you can hear both nets while you are transmitting
 - An HT with an earbud under your headphones usually works well
- Use a separate ICS-309 Message Log for each net
 - Include net name in field 3: Radio Net Name or Position/Tactical Call
 - Examples: “Hospital Net / Valley Medical; “Santa Clara Tac 1 / Kaiser SC”
- Inform both net controls
 - “Net control, be advised that I am operating two nets simultaneously. This is my {primary|secondary} net. I may not hear you or be able to answer right away if I’m handling higher priority traffic on the other net.”
- Work at your own pace; you’re still just one person
- Use previously covered techniques to avoid stress, fatigue

Cross Band Repeat

For more detail, consult the Cross Band Repeat course



Shelter, Base or Command Post

Cross Band Repeat

For more detail, consult the Cross Band Repeat course

- Advantages
 - Freedom of movement within the shelter, base, or command post for message pick-up and delivery, or locating people with the information you need
 - May be the only practical option you have if you're the only operator
- Challenges
 - HT audio is usually not very good, for either TX or RX
 - Use a headset with boom mic, instead of earbud with inline mic
 - Monitor your duty cycle
 - HT batteries will run down
 - Use extra-low power, have extra batteries charging at all times
 - Cross band repeater radio will overheat
 - Use low power on local/user side
 - Use a good antenna and lowest possible power on the remote/uplink side
 - Consider using a base station radio capable of higher duty cycle
 - Remember to use tone squelch to prevent repeating of noise

Higher Traffic; Higher Speed



- A Type II operator is expected to have higher traffic levels
- Speed comes with practice and following procedures
- Net procedures
 - Proper net procedures speed up overall net operations
 - Check-in/out, constant monitoring, pauses, reporting formats, phonetics
- Message passing procedures
 - Most net traffic is message traffic
 - Proper message passing procedures speeds up most nets
 - Message prioritization, prowords
 - Those skilled at message passing can transfer a message two to four times as fast as others; as much as 10 more messages per hour!
- Take every opportunity to practice
 - On air message passing practice, weekly nets, drills and exercises



Dealing with Problems in the Field

Challenges and What to Do About Them

Loss of Repeater

- How to recognize
 - No courtesy tone (and there used to be one)
 - No squelch tail
 - Not receiving responses
 - No health & welfare checks; no traffic at all
 - You might hear people on the input but not the output
 - Use “Reverse” button to check



Loss of Repeater – What to Do



- Check your equipment
 - Volume turned up? On the right frequency?
 - Equipment is operational; adequate battery power
- Switch to simplex on repeater output
 - Switch to high power; include tone, in case others are using tone squelch
 - Program backup frequencies from the ICS-205 into your radio memory and be ready to switch to them in case of repeater failure or malicious interference
- Alternate paths of communications
 - Check your Comm. Plan (ICS 205)
 - Check your briefing notes/documents
 - Have a list of frequencies for the area you are in.
- Try tactical simplex frequency for the served agency
- Contact other field operators on tactical simplex

Power & Phone Outages



- Field station
 - Check to be sure it's not your equipment
 - Have your flashlights and or battery-operated lanterns nearby, at all times.
 - Configure station to automatically switch to back-up power
 - Batteries – multiple sources and types
 - Back-up generator
 - Vehicle
 - Safety, safety, safety (particularly at night)
 - May affect your ability to call 911
 - Check Comm. Plan (ICS 205) for alternative method of reaching emergency services
- Traveling
 - ATM's, gas stations, banks, stores – all may be closed
 - Signage may be dark and hard to read
 - Keep flashlight/headlamp handy

High Temperature



- Situation
 - You are operating in the middle of the summer in an area with very high temperatures which could affect equipment performance and your health.
- Action
 - Use a pop-up or other means to create shade for yourself and radio
 - Use lowest radio power possible
 - Switch radios
 - Position radio for sufficient air flow
 - Sufficient space around cooling fins
 - “Radio in a box” is not the best approach in a hot environment unless it includes forced air (fan) ventilation
 - Consider sealed “blue” ice packs (but watch for condensation!)
 - Use a 12v DC fan (consider CFM > 50 and dB < 25)



Rain, Wind



- Situation
 - You have to operate in rain, wind or both
- Action
 - Protect your paperwork and equipment from wind, rain
 - Plastic bags for radio, clipboard
 - Clipboard(s) and weights for paperwork
 - Use a pop-up or other means to create shelter
 - Add sides to protect from blowing rain
 - Add weights to protect against wind, especially if pop-up has sides
 - Typically 40+ lbs per leg are needed
 - Keep electrical connections off wet ground

Difficult People



- Situation
 - People may be scared, tired, stressed, or all of the above
 - This applies to other staff as well as the general public
- Action
 - Stay calm; project calmness, confidence
 - Focus on the problem, not the personality
 - Most people will calm down when they see their concern is being addressed
 - If you are unable to address the problem or if the situation persists, seek help from your supervisor
- If you disagree with your supervisor or agency staff
 - Calmly explain your thoughts and views. listen to their reasons.
 - Unless you have a legal, moral, or safety reason to refuse the assignment, follow the instructions of your supervisor and staff.
 - Do Not walk off or disappear because you disagree with procedures or policies established.
 - Remember, they're the experts on their jobs.

Safety

- Pay attention to your health and those around you
 - Hydration
 - Cold and heat
 - Stress
 - Fatigue
- Do not go places that you feel are not safe
 - Moving water
 - Mud/Land slides
 - Active fires

RF Safety (Review)

- Perform an RF Exposure Calculation
<http://www.arrl.org/rf-exposure-calculator>
- More details in the Antenna Fundamentals

Responsibilities to Served Agency

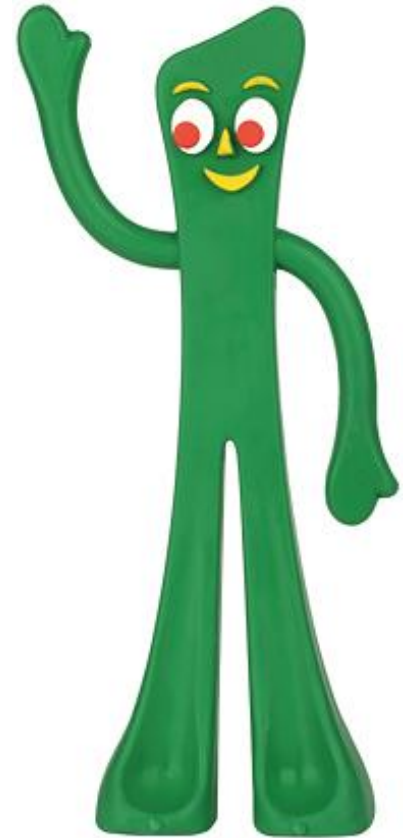


- A reminder, our priority is serving the public in time of need, as managed by the served agency.
- If a situation arises where you cannot continue with the current assignment you need to discuss the alternatives with the served agency and supervisor.
- If dispatched for Mutual Aid on a County assignment, you need to talk with the County RACES Unit Leader (or their designee) before abandoning your post.

Key To Success ...

Semper Gumby

("Always Flexible")





Demobilization

Demobilization

- Shift Change
- Closing out your assignment
- Paperwork
- Returning home

Shift Change

- If someone will be relieving you, they should arrive early to set up their station and receive a relief briefing from you
 - See SCCo Performance Standards for relief briefing contents
- What are some key elements of the relief briefing?
 -
 -
 -
 -
 -
 -
 -

Closing Out Your Assignment

- Check out of the net you've been using
- Check into the staging net

Exercise:

- Assume it is 12:00 and your assignment is completed
- You checked out of your assigned net
 - In this case, the Student Net
 - Typically, a tactical net
- You checked into the Staging Net
 - Or whatever net is appropriate (local tactical, resource, ...)
 - In this case, it's the Staging Net
- Update your ICS-309 and ICS-214

Exercise: ICS-309 Logging

5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
09:00			NC		Check-in
09:30	NC				H&W
09:45			NC		Requested Water
09:50	NC				Water on the way
10:00	NC				H&W
10:10		S##-100	NC	XND-205	[213] Classroom Status
10:20		S##-101	NC	XND-206	[Res. Req.] More donuts
10:30	NC				H&W
10:45	NC	XND-207		S##-102	[213] Donut Status
. . .	. . .	. . .	. . .	. . .	--- other activities ---
12:00			NC		Check-out

6. Prepared By (Name, Call Sign) <i><your name>, <your call sign></i>	6A. Signature Your Signature	7. Date & Time Prepared <i>MM/DD/YYYY 12:00</i>	8. Page <u>1</u> of <u>1</u>
--	---------------------------------	--	------------------------------

 **Required**

Next operator (if any) begins a new 309 form

Example: Updated ICS-214

6. ACTIVITY LOG	
Time (24:00)	Major Activities & Events / Occasional Messages (indicate From / To / Msg# / Msg Text)
08:00	Assignment: attend Field Ops III/II Training Class. Sheriff's Office
08:05	Depart home, initial odometer 123
08:25	Arrive staging, final odometer 134
08:50	Assignment: participate as student, tactical call "student <your number>"
09:00	Station set up complete; checked into student net; see ICS-309
...	... other activities
12:00	Shift complete; checked out of student net; check into staging net

Return or Hand Off Forms

- If a new operator is relieving you
 - Take only your ICS-214 Unit Activity log with you to staging
 - Leave everything else at the station for the next operator
 - ICS-309 Communications Log, various message forms, notes, ...
 - The new operator may need to refer to previous communications
- If you are the last operator at the site
 - Bring all forms and notes with you to staging

Return to Staging

- Pack up your station if appropriate
- Complete any procedures requested by local staff
 - Debriefing, review forms, time accounting, etc.
- Return to staging
- Close out your ICS-214
- Turn in all paperwork
- Sign-out on the ICS-211A
- Check out of Staging Net

Exercise: Finish Up at Staging

- The time is now 12:20
- Close out your ICS-214
- Sign-out on the ICS-211A
- Check out of staging net

Example: Updated ICS-214

6. ACTIVITY LOG	
Time (24:00)	Major Activities & Events / Occasional Messages (indicate From / To / Msg# / Msg Text)
08:00	Assignment: attend Field Ops III/II Training Class. <class location>
08:05	Depart home, initial odometer 123
08:25	Arrive staging, final odometer 134
08:50	Assignment: participate as student, tactical call "student <your number>"
09:00	Station set up complete; checked into student net; see ICS-309
...	... other activities
12:00	Shift complete; checked out of student net; check into staging net
12:20	Sign-out of staging; heading home

7. Prepared By (Name, Call Sign, ICS Position) <your name>, <your call sign>	7A. Signature Your Signature	8. Date & Time Prepared MM/DD/YYYY 12:20	9. Page <u>1</u> of <u>1</u>
---	---------------------------------	---	------------------------------

 **Required**

ICS 211A Check-in List (Communications)

ICS 211A CHECK IN LIST (COMMUNICATIONS)	1. INCIDENT NAME: <i>Field Ops III/II Training</i>		2. DATE: <i>MM/DD/YYYY</i>		3. INCIDENT NUMBER: <i>TC-26-01T</i>		4. CHECK IN LOCATION <i><class location></i>
5. INFORMATION							
PERSONNEL NAME	CALL SIGN	AGENCY	TIME IN	TIME OUT	HOURS	REMARKS	
<i><your name></i>	<i><your call></i>	<i><your org></i>	<i>08:30</i>	<i>12:20</i>			
ICS 211A SCCo RACES	6. NUMBER OF PAGES: <u>1</u> of <u>1</u>		7. PREPARED BY (RESOURCE UNIT): <i><your name and call sign></i>			8. MISSION NUMBER XSC	

Return Home

- Check into resource net for tracking home
 - Exception:
 - IF AND ONLY IF the event is a public service event (not a real emergency incident, not a drill), ...
 - AND IF you don't need/want to be tracked home,
 - THEN you can skip the resource net on the way home
 - No need to wait around just to “check-in/check-out”
- Same Resource Net operating procedures apply
 - Check-in with your FCC call sign
 - Provide location, odometer, FCC call sign for health & welfare checks
 - Check-out when you reach your destination (Do not forget)

Congratulations!

- You have completed a simulated full activation
 - Mobilization
 - Operations
 - Demobilization
- You learned about equipment
- You learned about handling problems
- Can you remember it all?
- Can you repeat it over and over without missing anything?



Checklists

For Field Operations

Checklists

- Each role has a checklist
 - Field
 - Net Control
 - Packet
 - Shadow
- Doesn't replace proper training
- Operator expected to
 - Review checklist at each stage of deployment
 - Understand meaning of each step
 - Complete each step correctly
- The Performance Standards & Best Practices has a more extensive list.

Santa Clara County ARES/RACES Field Operations Checklist

Last Revised: 28-May-2021

Alert

- Provide damage report to county Resource Net (or city net, as directed by local city procedures)
- Monitor for escalation - Resource Net level 2, 3
- Verify home and family are safe
- Verify vehicle is fueled and ready
- Verify go kit is ready
- Verify you are ready

Assignment and Activation

- For city activation:
 - Check into city net and request assignment
- For county activation:
 - Get released by city EC
 - Check into county Resource Net and request assignment
- Copy assignment details
- Copy activation number
- Update ICS-214

Travel to Assignment

- Contact Resource Net Control
 - "Ready to Depart", Provide location & odometer
- Obey all traffic laws
- Pay attention and respond to health & welfare checks
- Do not go into areas that you feel are unsafe

Summary

You should now be able to:

- Describe the role of a field operator, including
 - Served agency needs, field assignment types, SCCo ARES/RACES credentialing system
- Explain and perform basic safety procedures
- Properly execute an assignment, including
 - Selecting equipment, mobilization, field operations, dealing with problems, demobilization
- Understand and use a field operations checklist

Final Assignment

Please complete the Class Evaluation within one week.

To get course credit you need to:

- a) Attend at least 90% of the class
- b) Participate in class
- c) Complete the class evaluation

If you do these, you will get credit for the course.

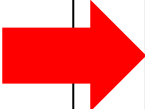
Online Class Evaluation

CLASS EVALUATION MUST BE SUBMITTED WITH 7 DAYS TO GET CLASS CREDIT

Activities Database

Home
Log Out
Activities Home
SCC ARES/RACES Home
Comments/Bugs
Events
List Events By Date
List Events I Joined
Submit Class Evaluation
My Profile
My Contact Info

Website Home Page



 Training & Practice	>
Classes <i>Emergency communications training curriculum</i>	>
Submit Class Evaluation <i>How can we improve?</i>	>
Voice Nets <i>City nets, SPECS/SVECS, hospital, training, HF</i>	>

Thank You!

If you have questions or feedback about this or other training activities, you can join our Training discussion group:

<https://scc-ares-races.groups.io/g/training>

This is a moderated group

Sign up for:

- Next Quarterly Drill is August 22nd
- Crossband and Antennas class is September 12th
- County Wide Exercise is September 19th
- Quarterly Training Net (3rd Tuesday of first month each quarter)
- Los Altos Festival of Lights is November 29th