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Shadowing

Santa Clara County ARES®/RACES

Last Updated: 05/29/2024

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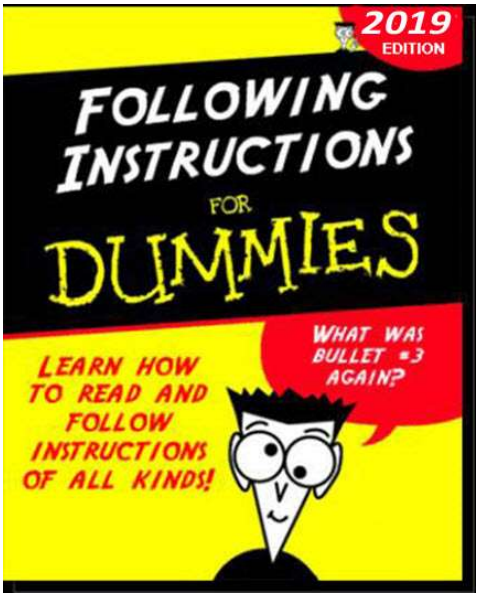
HOUSEKEEPING

- Introductions
- Pen/pencil & paper
- Cell phones
- Side conversations
- Questions
- Breaks
- Restrooms
- Do not wander within building
- In case of emergency



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Learning Objectives

- Explain the role of the Shadow Communicator
- Explain the importance of the role
- Explain the proper equipment to use
- Deal with various problems faced by shadow communicators
- Function as a fully independent shadow communicator to
  - Handle personal safety
  - Properly and professionally interact with the principal
  - Effectively and efficiently pass message traffic at a low level
  - Handle and pass emergency traffic
  - Properly document and log all activities
- Explain the Credential Standard for a Shadow evaluation
- Understand the importance of knowing how to program your radio

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Agenda

- Roles and responsibilities
- Expectations of your principal
- Capabilities and services a shadow provides
- Types of message traffic handled
- Proper logging, monitoring, and message passing
- Proper shadowing techniques; the DOs and DON'Ts
- Dealing with problems encountered while shadowing
- Personal safety while shadowing
- How to earn a Shadow Credential

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Fictitious Call Signs

- Examples used in this class make use of fictitious call signs:

- W6XRL4: Herman Munster
  - Character in a 1960 TV show
  - We will treat it like a real FCC call sign, even though it doesn't have the correct format

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What is a Shadow?

- An Amateur Radio Operator (the **Shadow**) who accompanies an official (the **Principal**) during an event. A shadow operator may be on foot or mobile.
- The Shadow provides communications support for the Principal.
- The shadow MUST ALWAYS remain in the immediate vicinity of the Principal being shadowed.

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Successful Shadowing

How to succeed …

… without being noticed.

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Two Kinds of Shadowing

- **Public Events/Drills**
  - Parades, sporting events, races, etc.
  - Drills are good for gaining experience
- **Incidents & Emergency Activations**
  - Need experience
  - Potential for injury and loss of life in emergencies
  - Need to be ready for anything

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Shadow Type III

- **Capabilities**
  - Fully independent operator
    - Has the equipment, training, knowledge, skill, and experience to handle basic assignments correctly, without the need for assistance or coaching
  - Non-Critical, small or low complexity events
  - Low to medium traffic levels
  - Equipment: standard SCCo ARES/RACES go kit, a way to carry your radio while operating portable
- **Typical Assignment – Shadow for**
  - General event staff
  - Shelter Manager / CERT Team Leader

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Shadow Type II

- **Capabilities**
  - Type III plus
    - Critical, large or high complexity events
    - More critical assignments
    - Plans small events
    - May have light duty on a second net
- **Typical Assignment**
  - Shadow for primary event official, city or county official
  - Shadow Net Liaison

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Shadow Type I

- **Capabilities**
  - Type II plus
    - Most critical, large or complicated assignments, highest traffic levels
    - Plan, design, deploy and manage shadow communications for large events/incidents
- **Typical Assignment**
  - Shadow for senior government or high-profile official
  - Primary liaison for planning shadow comms

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Shadow Assignments

- Public Service Events
  - Event Organizer
  - Safety Officer or Marshals
  - Judging personnel
  - Other event staff
- Activations
  - Incident Commander
  - Shelter Manager
  - EOC Staff
  - High profile principal

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Shadowing: Abilities

- Stay focused on your principal
- Polite, friendly attitude
- Can keep up with your principal - critical
- Can juggle multiple tasks and priorities
- “Think on your feet” – literally
- Present and available *(when needed)*
- Can problem solve
- Stay cool under pressure

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Shadowing: Skills

- Manage appropriate traffic levels
- Effectively pass message traffic
- Fully independent field operator
- Deployed up to 8 hrs, prepared for 12 hrs
- Prepared to operate in the dark or rain
- Maintain accurate logs and records
- Stay calm and collected even when your principal isn't
- Manage and follow-up on multiple messages

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Shadowing: Forms

- ICS 211 – Check In List
- ICS 214 – Unit Activity Log
- ICS 309 – Communications Log
  - Optional for Shadows
- Unofficial Forms:
  - Telephone Message Pad (2 part NCR)
  - Index cards
  - "Form 1"
- ICS 213 – 3rd Party Message Form

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ICS 211A CHECK IN LIST (COMMUNICATIONS)	1. INCIDENT NAME: Mummy Race	2. DATE: 10/31/20	3. INCIDENT NUMBER: MBH-20-03	4. CHECK IN LOCATION Gateman, Goodbody

5. INFORMATION						
PERSONNEL NAME	CALL SIGN	AGENCY	TIME IN	TIME OUT	HOURS	REMARKS
Herman Munster	W6XRL4	City	1830	0010		

ICS 211A SCCo RACES	6. NUMBER OF PAGES: _____ of _____	7. PREPARED BY (RESOURCE UNIT):	8. MISSION NUMBER XSC -

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ICS-214 Unit Log

- Record significant events
- Message traffic
- Turned in at end of shift
- Legible

UNIT LOG
ICS 214-SCCo
ARES/RACES

1. Incident Name and Activation Number: Mockingbird Heights Mummy Race MBH-20-03
2. Operational Period (Date/Time): 10/31/20 From: 2000 To: 10/31/20 2400
3. Unit Name / Tactical Call / Designations: Dracula's Shadow
4. Unit Leader (Name, Call Sign, ICS Position): Herman Munster W6XRL4

5. Personnel Roster Assigned

Name	Call Sign	ICS Position	Home Base/City

6. ACTIVITY LOG

Time (24:00)	Major Activities & Events / Occasional Messages
1930	Arrived at staging
1940	Attended briefing - Assigned as Dracula's Shadow
1955	Meet up with Dracula, conducted 5 minute review
2000	Started Shift
2005	To Blood Bank - Dracula asks blood bank for more blood

7. Prepared By (Name, Call Sign, ICS Position)
8. Date & Time Prepared
9. Page 1 of ___

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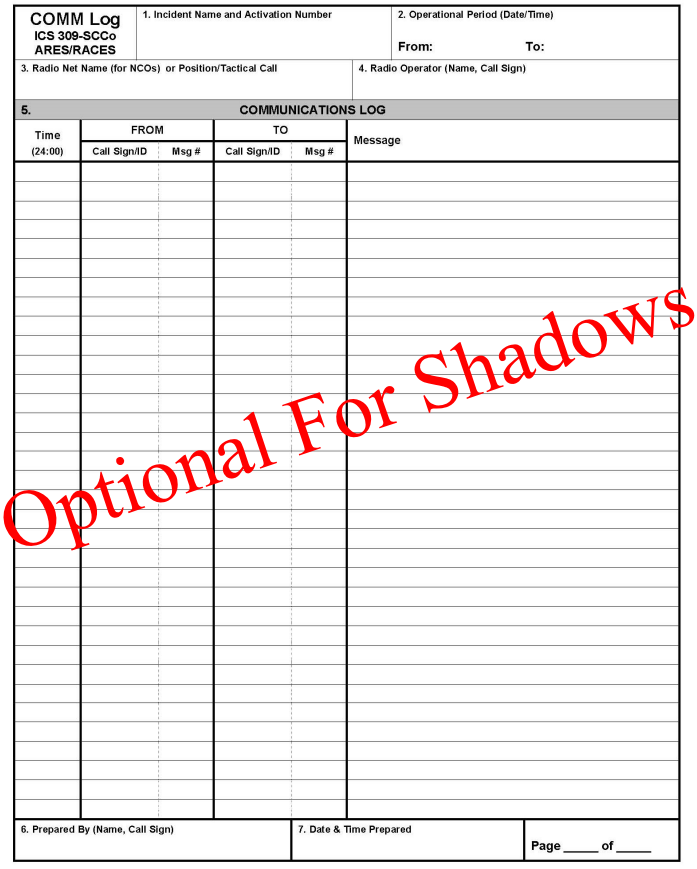
ICS-309 Comm Log



COMM Log ICS 309-SCCo ARES/RACES	1. Incident Name and Activation Number	2. Operational Period (Date/Time) From: To:
3. Radio Net Name (for NCOs) or Position/Tactical Call		4. Radio Operator (Name, Call Sign)

5. COMMUNICATIONS LOG					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	

6. Prepared By (Name, Call Sign)	7. Date & Time Prepared	Page ____ of ____

ICS 309-SCCo ARES/RACES (rev. 2009-Sep-03)

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Phone Call Message Pads

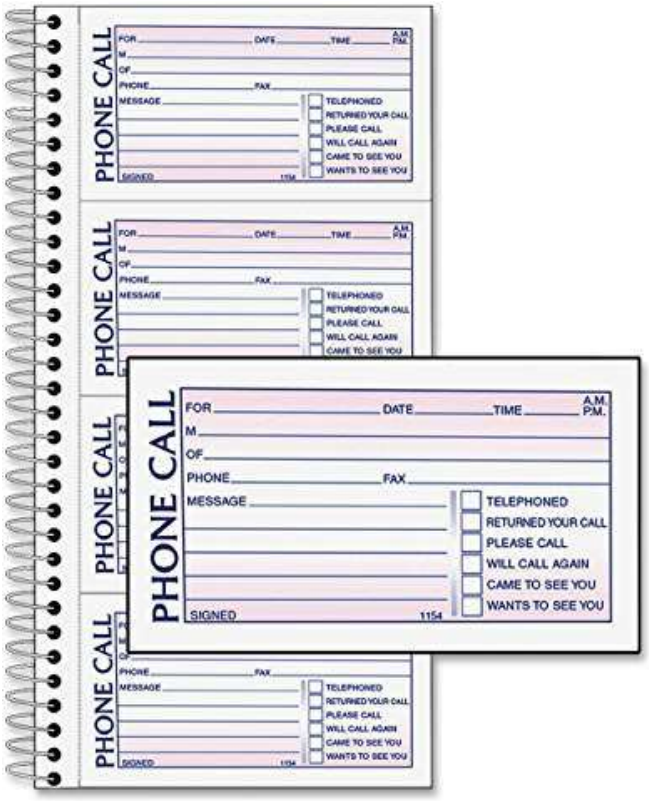
This is a good form for passing informal traffic that can't or shouldn't be done verbally.

Can be used when principal is in a meeting or briefing, without interrupting them.

2-part carbonless preferred

Turned in with other paperwork.

Log it.



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“Form 1”

Spiral Index Cards

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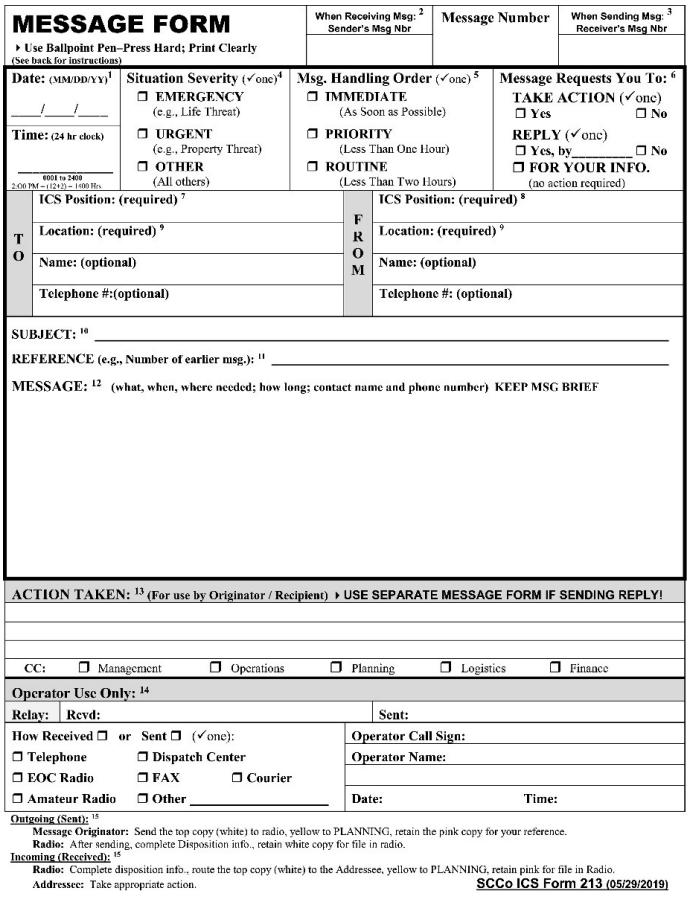
ICS-213 Message Form

Always have formal message forms with you. You may need them to document a formal message, and even have it approved for accuracy before you send it.



MESSAGE FORM

‣ Use Ballpoint Pen–Press Hard; Print Clearly
(See back for instructions)

When Receiving Msg: [2] Sender's Msg Nbr | Message Number | When Sending Msg: [3] Receiver's Msg Nbr

Date: (MM/DD/YY)[1]	Situation Severity (✓one)[4]	Msg. Handling Order (✓one)[5]	Message Requests You To:[6]
____/____/____	❒ EMERGENCY (e.g., Life Threat)	❒ IMMEDIATE (As Soon as Possible)	TAKE ACTION (✓one) ❒ Yes ❒ No
Time: (24 hr clock) ____ 0001 to 2400 2:00 PM = 1242 = 1400 Hrs.	❒ URGENT (e.g., Property Threat)	❒ PRIORITY (Less Than One Hour)	REPLY (✓one) ❒ Yes, by_____ ❒ No
	❒ OTHER (All others)	❒ ROUTINE (Less Than Two Hours)	❒ FOR YOUR INFO. (no action required)

TO	FROM
ICS Position: (required)[7]	ICS Position: (required)[8]
Location: (required)[9]	Location: (required)[9]
Name: (optional)	Name: (optional)
Telephone #:(optional)	Telephone #: (optional)

SUBJECT: [10] _____

REFERENCE (e.g., Number of earlier msg.): [11] _____

MESSAGE: [12] (what, when, where needed; how long; contact name and phone number) KEEP MSG BRIEF

ACTION TAKEN: [13] (For use by Originator / Recipient) ‣ USE SEPARATE MESSAGE FORM IF SENDING REPLY!

CC: ❒ Management ❒ Operations ❒ Planning ❒ Logistics ❒ Finance

Operator Use Only: [14]

Relay:	Rcvd:	Sent:
How Received ❒ or Sent ❒ (✓one):		Operator Call Sign:
❒ Telephone ❒ Dispatch Center		Operator Name:
❒ EOC Radio ❒ FAX ❒ Courier		
❒ Amateur Radio ❒ Other _____		Date: Time:

Outgoing (Sent): [15]
Message Originator: Send the top copy (white) to radio, yellow to PLANNING, retain the pink copy for your reference.
Radio: After sending, complete Disposition info., retain white copy for file in radio.
Incoming (Received): [15]
Radio: Complete disposition info., route the top copy (white) to the Addressee, yellow to PLANNING, retain pink for file in Radio.
Addressee: Take appropriate action.

SCCo ICS Form 213 (05/29/2019)

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What forms do I need?

Standard Go Kit Forms

Go-Kit forms Common for Shadows

All Go Kit Forms (ZIP, 4.3 MB) [Rev: 12-Jul-2019]			
PDF	Word	Qty	Form Name
		2	RACES Recommended Form Routing Cheat Sheet [Rev: 04-May-2019]
		5	RACES Radio Routing Slip [Ver: 190527b]
		5	ICS 205 SCCo RACES Communications Plan [Rev: 09-Jul-2018]
		5	ICS 211A SCCo RACES Check In List - Communications
		10	ICS 213 Message Form [Ver: 190529b]
		5	ICS 214 SCCo ARES/RACES Unit Activity Log [Rev. 25-Sep-2009]
		5	ICS 309 SCCo ARES/RACES Communications Log [Rev. 18-Dec-2014]
		5	ICS 314 Windshield Assessment Survey
		5	SCCo EOC-213RR Resource Request (with Guide) v2017-08
		3	SCCo OA Municipal Status [Ver: 190528b]
		3	SCCo OA Shelter Status [Ver: 190619b]
		3	SCCo Allied Health Facility Status (DEOC 9) (with instructions) v2018-02

https://www.scc-ares-races.org/operations/go-kit-forms.shtml

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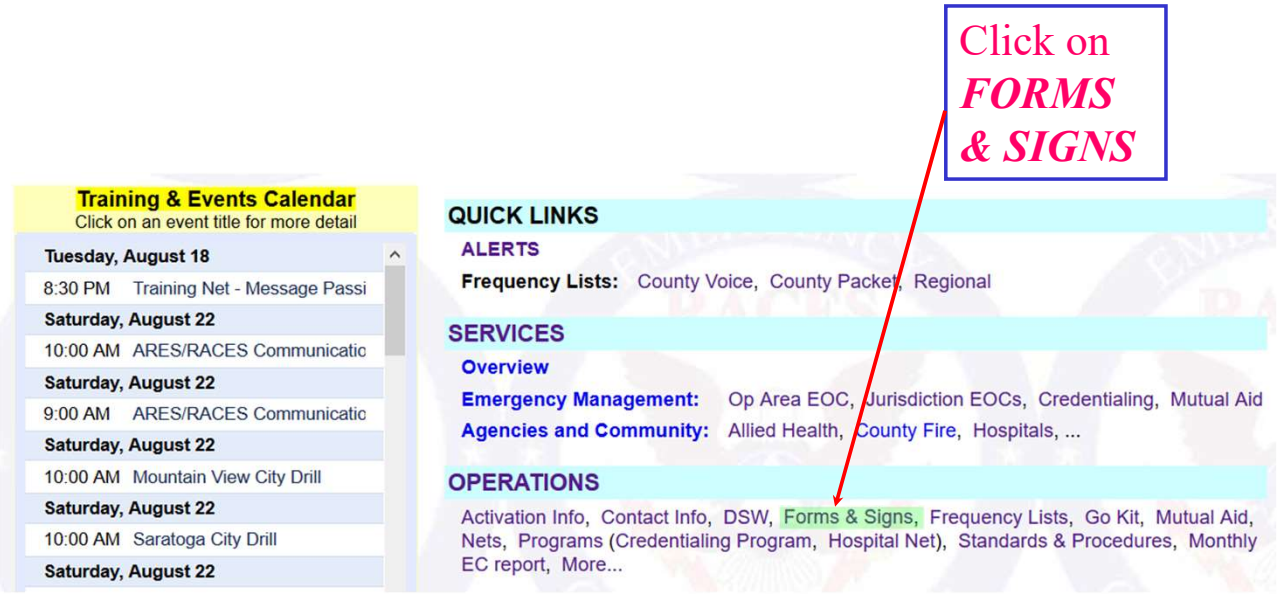
Where do I get these forms?

http://www.scc-ares-races.org/



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Equipment: Go-Kit

- S3
  - HT dual band (2m/70cm) radio (5 watt) dual VFO, dual receive is preferable
  - Spare Batteries for minimum of 12 hours of operations
  - Small backpack, vest, or chest harness for carrying HT and other items
- S2
  - All S3 and F2 equipment and a second HT
- S1
  - All S2 and F1 equipment

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Equipment: Go-Kit

- Headset - headset (or ear bud) with boom mic (speaker mic not recommended)

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Equipment: Go-Kit

- Magnetic mount dual band (2m/70cm) antenna
- Adapters to connect to your radio (HT and/or Mobile)

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Equipment: Go-Kit

- Chest Pack, harness, pocket for radio and equipment so your hands are free

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Equipment: Paper Mgmt

- Good writing surface
- Forms Storage - Clip board w/storage or plastic folders

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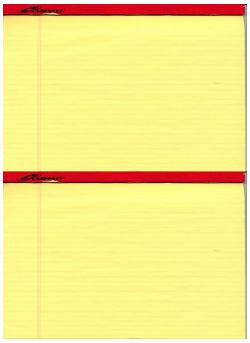
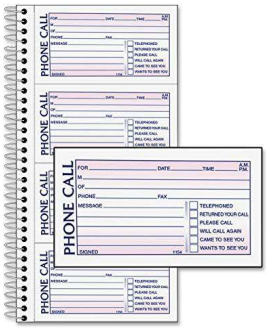
Equipment: Paper Mgmt

- Pads of paper or spiral bound steno pad notebook (form 1) for informal messages
- 2-part Phone message pads
- Multiple binder clips of various sizes





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Equipment: Paper Mgmt

- Forms
  - ICS 214 SCCo RACES – Unit Log
  - ICS 309 SCCO RACES (optional for Shadows)
  - ICS 213 SCCo RACES – Message Form

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Equipment: Personal

- Several pens or your favorite writing implements
- Sturdy comfortable shoes or boots
- Hat or helmet (depending on assignment)
- Clothes (dress in layers), anticipate assignment
- Gloves (still need to write, use radio, and handle forms)
- Jacket or windbreaker to match anticipated weather conditions.
- Safety vest, ANSI Class 2, safety yellow/lime yellow with pockets for carrying items while operating portable

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Equipment: Personal

- Personal Supplies
  - Water or juices
  - Power or energy bars
  - Sunscreen
  - Sun glasses
  - Easy to read watch
  - Small flashlight with at least one set of spare batteries.
    - Book light – Great on clip board
    - Head Lamp – Don't blind people with your light

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Shadowing: First 5 minutes

- Set mutual expectations
  - Introduce yourself
  - Ask if they have any questions
    - First time assigned a shadow?
      - Explain the capabilities and services you and Net Control can provide.
      - Explain we are communicators, not assistants. You are limited to and insured for communications.
  - Write down their full name and title
  - Exchange cell #s if appropriate

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Shadowing: First 5 minutes

- Understand the equipment they expect you to use.
  - Your own
  - A commercial or other radio provided by event
  - Their cell phone
- Ask what type of traffic they need you to handle/monitor.
  - Listen for and keep them informed of significant events and activities they care about.

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Shadowing: First 5 minutes

- Establish procedures to reconnect when separated.
  - Bathroom breaks
  - Sensitive meetings
  - You lose them (it happens)
- Cell phone contact
- Arrange a meeting place if you lose each other

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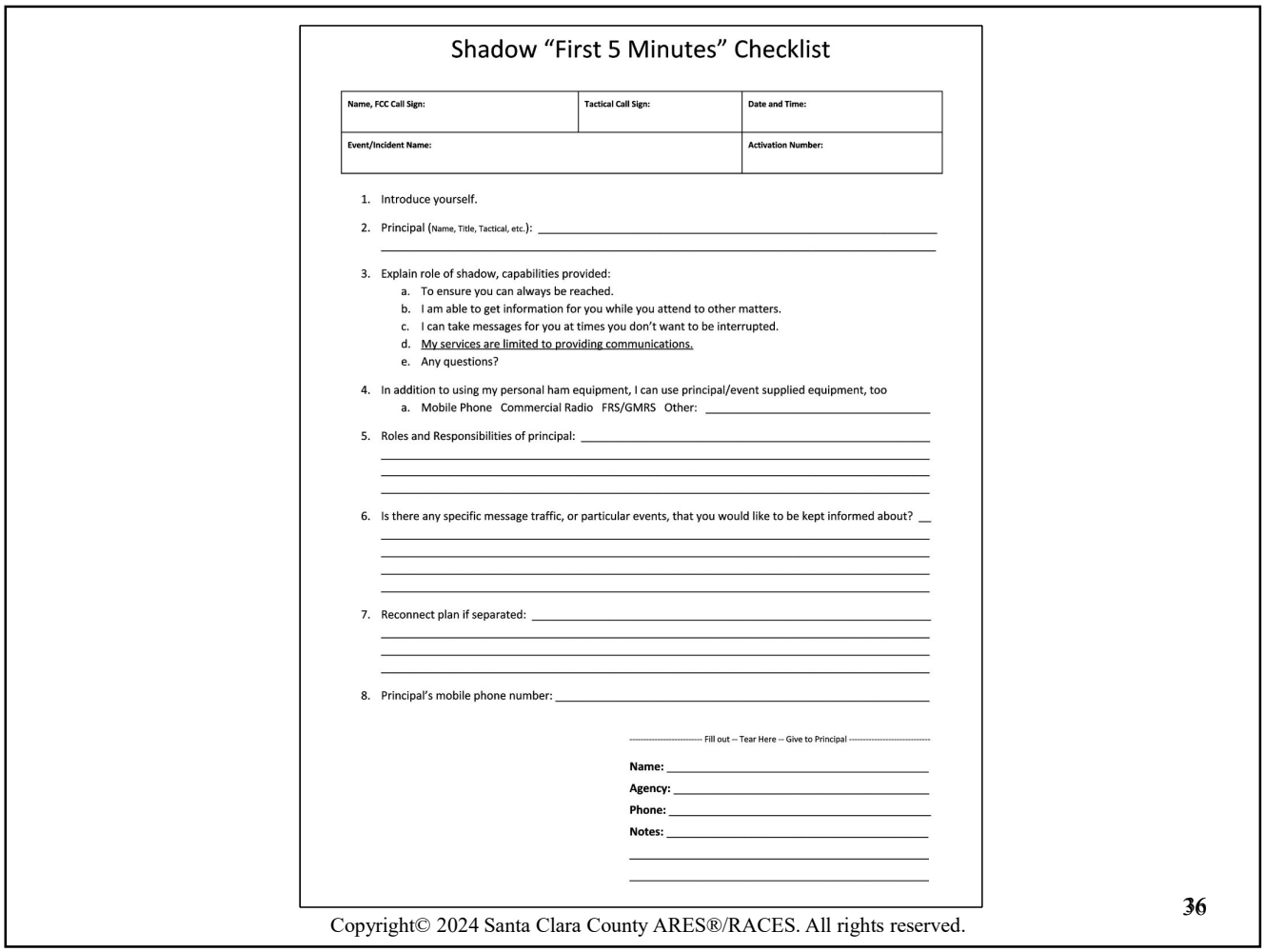

Shadow "First 5 Minutes" Checklist

Name, FCC Call Sign:	Tactical Call Sign:	Date and Time:
Event/Incident Name:		Activation Number:

1. Introduce yourself.
2. Principal (Name, Title, Tactical, etc.): _____
   _____
3. Explain role of shadow, capabilities provided:
   a. To ensure you can always be reached.
   b. I am able to get information for you while you attend to other matters.
   c. I can take messages for you at times you don't want to be interrupted.
   d. My services are limited to providing communications.
   e. Any questions?
4. In addition to using my personal ham equipment, I can use principal/event supplied equipment, too
   a. Mobile Phone Commercial Radio FRS/GMRS Other: _____
5. Roles and Responsibilities of principal: _____
   _____
   _____
   _____
6. Is there any specific message traffic, or particular events, that you would like to be kept informed about? __
   _____
   _____
   _____
   _____
7. Reconnect plan if separated: _____
   _____
   _____
   _____
8. Principal's mobile phone number: _____

---------- Fill out -- Tear Here -- Give to Principal ----------

Name: _____
Agency: _____
Phone: _____
Notes: _____
_____
_____

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Break Time!

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Effective Shadowing

- Stay within an effective distance of your Principal
  - Typically 5-10 feet away
- Remain with your Principal until relieved
  - By Replacement
  - By Net Control
  - Or released by your principal or other authority

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Effective Shadowing

- Multi-tasking:
  - Monitoring your net
    - While communicating with your Principal
  - And logging traffic and events
    - While not losing sight of your Principal
- When passing verbal traffic:
  - Do not use Q-codes or 10-codes.
  - ID with your Tactical Call and FCC Call Sign
    - At the end of an exchange or at 10 minutes
    - This is Dracula's shadow … W6XRL4

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Effective Shadowing

- If the principal takes a break, you should too.
  - Never pass on bathrooms, meals or rest.
- Do as you are told
  - You may be excluded from meetings, briefings, or private conversations.
- Do as you are told… unless
  - It involves your personal safety, and you find it questionable

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Effective Shadows …

- Know their Principal's position and title.
  - You may be called by either one.
- Know function of other principals being shadowed and the Tactical Call of the other Shadows
  - Who to call for information your principal wants
- Remain composed and positive
  - You are there to help the Principal be successful
- Monitor **all** traffic for information that might be useful to their Principal. Anticipate their requests.
  - If they ask for a status on something frequently, pay attention to those events.
  - Record significant events and activities to anticipate what they may ask about later

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Effective Shadows …

- Ask clarifying questions before transmitting or relaying information
  - If it doesn't make sense to you, it may be incomplete
  - Clarify timeframes on requests before relaying.
  - What priority / how critical is this request?
- Listen for direct traffic, not from Net Control.
  - Normally a Shadow Net is an Open Net
- Prioritize traffic to/from Principal, to avoid monopolizing the net.

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Effective Shadows …

- Are mindful of Principals' personal space.
  - If they are uncomfortable, step back.
- Ask NCO to be relieved if you cannot keep up the pace.

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Shadows: What to log?

- ICS 214 (Unit Log)
  - When assigned, relieved
  - “First 5 minutes” information
  - Notes, questions, significant events
  - Messages, inquiries
  - Every time you transmit or receive
- ICS 309 (Communications Log) **Optional for Shadows**
  - A Shadow needs to be mbile working from a clipboard
  - OK to log all messages on ICS-214
  - But, you do need an ICS-309 for a second net

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Shadows: What to log?

- Examples:
  - *0813 : First runners started.*
  - *0822 : To all checkpoints - Principal needs to know when first runner passes each checkpoint.*
  - *1413 : Asked parking detail to close South parking lot. Confirm when done.*
  - *1433 : Parking detail says South lot now closed.*

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Shadows: What to log?

- Informal/Operational message traffic
  - Logistics requests
  - Most message traffic will be informal. Very seldom will you get any formal messages.
- ICS 213 (3rd Party Message)
  - Use ICS 213 when you want to precisely document a message or critical information.

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Shadows and Traffic Mgmt

- You could get **EMERGENCY** traffic for your Principal, pay attention.
- **ALWAYS** keep track of your traffic.
  - You could have 3-4 messages out waiting for responses, and several incoming messages or questions coming in.
  - Mark “open” questions, check them off.
  - Be prepared to go back through logs to answer previous questions.
  - Example: *Did the South parking lot ever get closed?*

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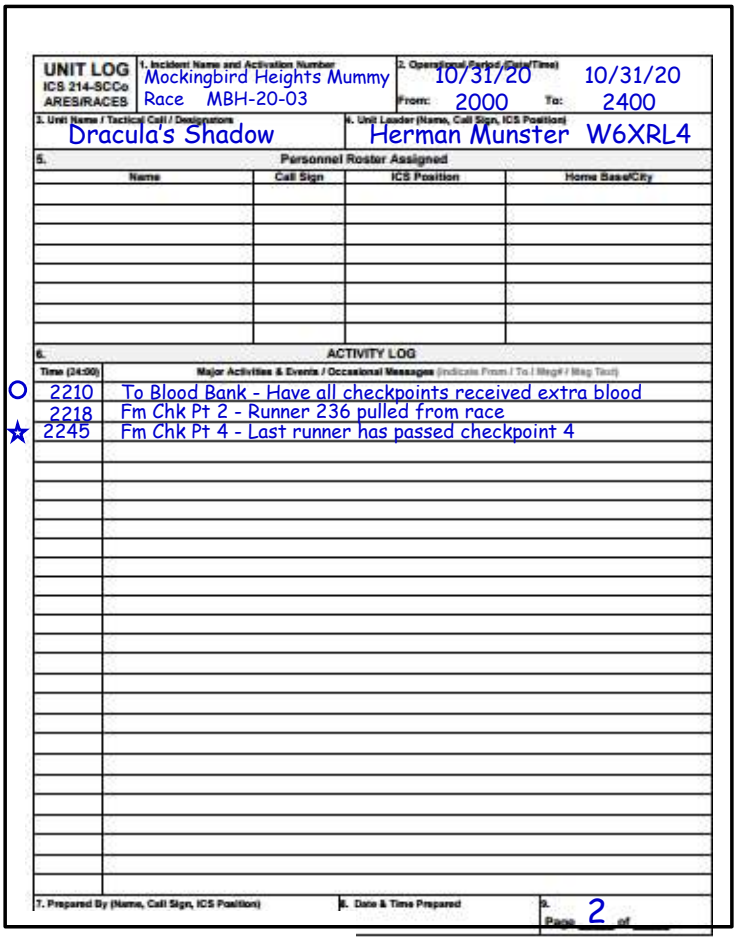

UNIT LOG ICS 214-SCCo ARES/RACES

1. Incident Name and Activation Number: Mockingbird Heights Mummy Race MBH-20-03

2. Operational Period (Date/Time): 10/31/20 From: 2000 To: 10/31/20 2400

3. Unit Name / Tactical Call / Designations: Dracula's Shadow

4. Unit Leader (Name, Call Sign, ICS Position): Herman Munster W6XRL4

5. Personnel Roster Assigned

Name	Call Sign	ICS Position	Home Base/City

6. ACTIVITY LOG

Time (24:00)	Major Activities & Events / Occasional Messages (Indicate From / To / Msg# / Msg Text)
○ 2210	To Blood Bank - Have all checkpoints received extra blood
2218	Fm Chk Pt 2 - Runner 236 pulled from race
☆ 2245	Fm Chk Pt 4 - Last runner has passed checkpoint 4

7. Prepared By (Name, Call Sign, ICS Position) 8. Date & Time Prepared 9. Page 2 of ___

ICS 214-SCCo ARES/RACES (rev. 2009-Sep-25)

- Have a system to track open items

Pending	Complete
/	X
-	+
○	●

- Have a system to note significant events that your principal may want to know about later

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Effective Shadows…

- Leave a GOOD impression.
  - It takes a lot more effort to overcome a bad impression.
  - You are an ambassador for SCCo amateur radio communications.
- Blend in and don't "stand out".
  - Best crew is never seen - same for a shadow.
- Work to solve the Principal's problems
  - Principal's concern and problems are yours as well.

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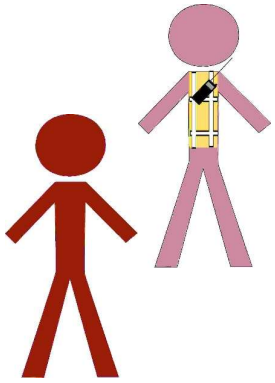
Don’t Socialize
Don’t lose your Principal



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Effective Shadows…

- DON'T stand around and chat with other shadows. Focus on your Principal.
- DON'T lose track of radio traffic.
  - Requires focus and attention to detail.
- DON'T interrupt unless it's an emergency or requested to do so by calling party.
- DON'T lose your Principal.
- DON'T chat with people around them.

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Shadows: Safety First!

- Dead heroes don't count
- Maintain situational awareness
  - Know your surroundings and situation
  - Disaster and Emergencies are unpredictable, don't turn your back
- If you believe it's unsafe, it's OK to say so
  - "This is as far as I go, I'll be here IF you come back."
  - You can back out but do so gracefully, don't just leave. Inform NC and/or supervisor.

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Shadow Credential Evaluation Criteria

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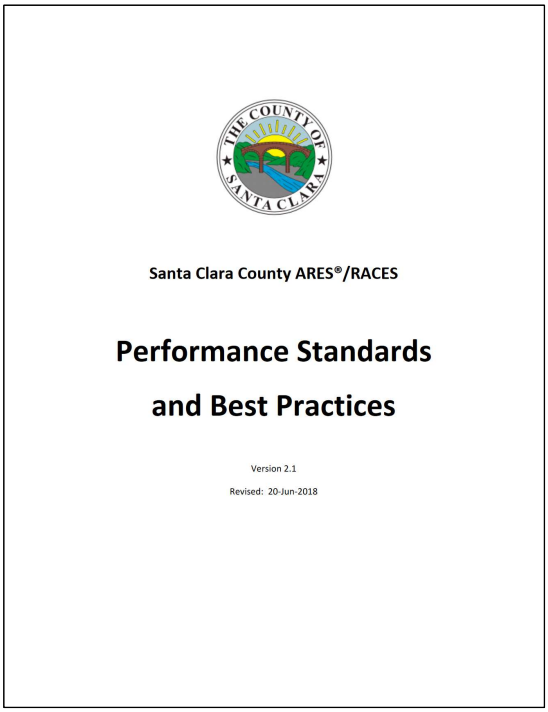
Good Operators Follow Performance Standards and Best Practices

- Covers all performance aspects of operating in ARES/RACES
  - Professionalism and Training
  - Communications Technique
  - Safety
  - Methods and Procedures
  - Equipment
  - Documentation
- Applies to all operators
- Standard used for credential performance evaluations



http://www.scc-ares-races.org/operations.shtml

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Earning a Credential

- **Equipment**
  - Standard 12-hour go kit, plus more as appropriate
- **Training**
  - SCCo ARES/RACES courses: technical and role-specific
  - ICS/SEMS/NIMS courses
- **Knowledge**
  - Able to explain key concepts (general and role-specific)
- **Experience**
  - Participation as a Shadow at events and incidents
- **Performance**
  - Peer-reviewed, based on Performance Standards
  - Conducted at regular events (no special circumstances needed)

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Prerequisites

	Type III	Type II	Type I
Prerequisite	• Field Comm Type III	• Shadow Comm Type III	• Shadow Comm Type II

Required Training

	Type III	Type II	Type I
Training	• SCCo Shadow Comm Type III	• Type III, plus • SCCo Cross-band Repeat	• Type II, plus: • ICS-300 • SCCo Event Planning
Participation & Experience	• 1 drill or public service	• Type III, plus: • 1 drill or public service	• Type II, plus: • 1 drill or public service • Plan Shadow Comms

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Shadowing: Equipment

	Type III	Type II	Type I
Equipment	• Field Comm Type III, plus: • Backpack, vest or harness for portable operations	• Field Comm Type II, plus: • Backpack, vest or harness for portable operations	• Shadow Type II, plus: • DC supply • Battery charger • Sustained power > 12 hrs

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Knowledge

	Type III	Type II	Type I
Knowledge	• HT radio familiarity • Performance Standards For Shadows • Managing problems	• Type III, plus: • Mobile radio familiarity • Cross-band repeater ops • Managing problems	• Type II, plus: • Radio familiarity • Manages problems

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Knowledge

- Can effectively deal with loss of:
  - Loss of Principal
  - Repeater
  - NCO
  - Just plain lost

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Loss of Principal

- Did you make prior arrangements
  - Exchange Cell Phone #s
  - Arrange a place to meet
- Ask other Shadows for help
- Ask Net Control for help

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Loss of Repeater

- How do you know?
  - Have not heard any traffic
  - No courtesy tone
  - Can not contact NC or other Shadows
- Actions
  - Is your radio working?
    - Battery OK
    - Did you accidentally change radio settings (lock keypad)
  - Use the Repeater Output frequency with tone
  - Is there a backup frequency on the ICS-205

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Loss of NCO

- Net Control is generally a liaison to another net or a monitor
- Is another Shadow near the NC location, can they investigate
- Can another under-utilized shadow listen to two nets and serve as liaison

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Just Plain Lost

- Actions
  - Do you have a map or other briefing documents
  - Ask another shadow if any are in sight
  - Ask Net Control for help

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Knowledge

- Can effectively deal with difficult physical environment

High Temp

Noisy

Rain/Wind

Cold

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High Temperature

- Situation
  - Operating in very high temperatures
- Actions
  - Use shade whenever possible
    - Trees, edge or eve of building, pop-ups
    - Try to keep your radio(s) out of direct sunlight
  - Stay Hydrated
  - Use sunscreen and hat
  - Watch for signs of heat exhaustion in yourself and others

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Rain/Wind

- Situation
  - You need to operate in the rain
- Action
  - Protect your paperwork and equipment from rain
    - Plastic bags for radio and clipboard
    - Waterproof paper (Expensive), waterproof ink
    - Binder Clips to hold papers/forms
    - Enclosed clipboard to protect papers
  - Always have appropriate clothing for conditions

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Cold

- Situation
  - You need to operate in the cold
- Action
  - Dress in layers
  - Hat, gloves, good footwear, hand & toe warmers
  - Watch for signs of hypothermia in yourself and others
  - Hydration and food, your body needs fuel

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Noisy

- Situation
  - You need to operate in loud conditions
- Action
  - Use a headset
  - Use noise cancelling mike
  - Pay extra attention to radio – it is easy to miss someone calling you
  - Just because it is noisy is not a reason for you to talk loudly. It only makes things worse.

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Break Time!

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Operator Skills

	Type III	Type II	Type I
Evaluation	• Performance Standards • Low-to-medium traffic • Multiple informal msgs • ICS-211, ICS-214, ICS-309	• Type III, plus: • Medium-to-high traffic • Multiple informal msgs • ICS-205 • 2 nets	• Type II, plus: • Plan, design, setup an event • ICS-201, ICS-202

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Operator Skills

Operator skill will be evaluated by observing performance in all of the following areas:

- Effectively manage traffic for the assigned principal for at least one hour
- Accurately and effectively passes message traffic
  - Multiple informal messages - fill out, log, pass, and track
- Properly and accurately maintains logs and records:
  - ICS 211A-SCCo Communications check-in form for all operators at the location
  - ICS 214-SCCo Unit Activity Log, including briefing, time on scene; messages sent/received; actions taken; events that occur; and time when assignment ends
  - Submits logs and records to supervisor at end of shift/event

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Operator Skills

- You need to be able to program your radio in the field without assistance from others or a computer
- Configure radio to perform each of the following without hesitation or delay without the use of documentation
  - Program frequency with
    - Simplex without tone
    - Simplex with tone and tone squelch
    - Repeater with offset and CTCSS tone
  - Save configurations to and recall from memory
  - Lock keypad or mic controls, if so equipped
  - How to do a full factory reset

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Operator Skills

- Identifies with Tactical call
- Ends communication with FCC Call
- Calls other Shadows by their Tactical Call
- Listens, Listens, Listens

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Type 2 Skills

- Set up and use a crossband repeater
- Ends communication with FCC Call
- Calls other Shadows by their Tactical Call
- Listens, Listens, Listens

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Lessons Learned

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Problem Solving

- When what you are doing just isn't working
  - Maybe information is not passed fast enough…
    - Maybe a directed net isn't called for
    - Switch to an open net for faster information exchange
  - Someone has an open mic
    - Locate the problem by checking with everyone
    - Have two frequencies: one for normal traffic and one used for H&W. Monitor both all the time
  - Tactical calls are too long and cumbersome
    - Shorten them to something than can be expressed more quickly

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Problem Solving

- You can't reach the shadow you need to talk to.
  - Ask Net Control to relay the message.
- You have a radio (or other) problem that you can't fix quickly.
  - Get word to Net Control that you need a replacement.
    - Ask a nearby operator to inform Net Control
    - Phone someone who can contact Net Control

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Problem Solving

- Your principal is getting irritated with you and taking it out on you.
  - Ask for help from Net Control.
  - Ask for the Comms IC's help
  - Ask to be replaced
- The environment is so noisy you really can't hear.
  - Try a different headset
  - Use an ear bud under a headset or earmuffs

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Problem Solving

- You're exhausted and just can't keep up with your principal
  - Ask for a replacement
  - Ask to have a principal that's more stationary
  - Try to anticipate this ahead of time
- Your radio isn't working correctly
  - Did you lock your keyboard?
  - Know your radio well
  - Ask another shadow for help
  - Take an extra radio, just in case

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Examples

- Check In To Shadow Net :23
- Meet Up with Principal 1:27
- Health & Welfare 1:15

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Examples

- Released/Check-Out :25
- Not Using Tactical Call :24

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Example

- What do you hear?
  What would you do differently?

5:20

Nancy's Shadow–NS Debbie's Shadow–DS Sammie's Shadow-SS
NS wants to get a message from SS that was unsuccessful over event radio

---

NS calls SS, NC tries to answer, DS answers & cuts off part of her Tactical
After a short while NS realizes he is talking to DS and not SS
NS again calls SS and asks for SS to relay message to NS
SS appears to think NS is going to send him a message and is waiting
NS clarifies that he is standing by for message from SS, SS misses that
NS calls SS to say he is still standing by for message from SS
SS is confused about direction of the message
NS tries to clarify
SS can't copy NS due to background noise
SS radio cuts out due to low battery
NS ask for help from Net Control (NC)

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Lessons

- Have the correct Equipment
  - Headset or ear bud, no speaker mics
  - Noise cancelling microphone
  - Batteries to last entire event, check them frequently. If batteries are low you can still receive, but transmit will be affected.
- Procedures
  - Listen, listen, listen. Pay attention
  - ID with Tactical Call
  - Don’t talk loudly to overcome noise
  - Ask for help from Net Control or others

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Theory vs Experience

- Two parts to learning: Theory and Experience
  - Focus of the classroom is on theory/procedures
  - Experience comes at drills and public service events
- Just like lecture vs. lab in college, both are needed to master the subject

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Experience

- Shadowing opportunities range from ones with very little traffic to quite busy.
- You can let the event organizer know you are new to Shadowing and they can then assign you to an easier position.
- For drills you might be assigned to a Principal who has been a shadow themselves and can help coach you.

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QUESTIONS

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Final Assignment

Please complete the Class Evaluation within one week.

To receive course credit, you need to

- Attend at least 90% of the class
- Participate in class
- Complete the class evaluation

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

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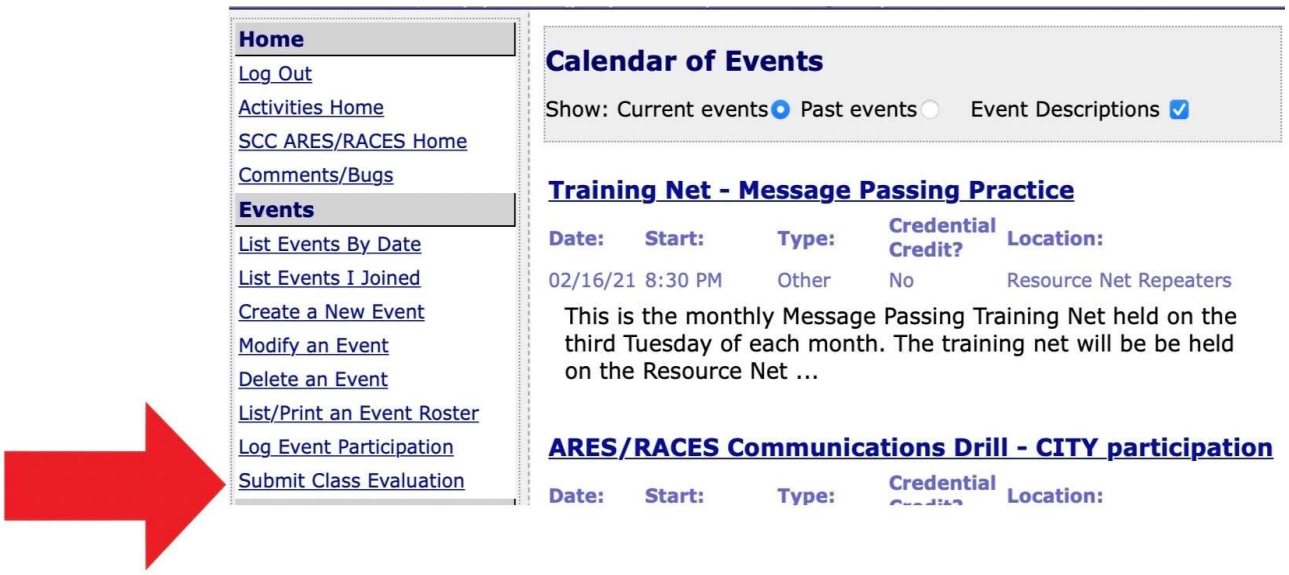
Online Class Evaluation

Log into https://www.scc-ares-races.org/activities/events.php
Click “Submit Class Evaluation” in Events



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Thank You!

If you have questions or feedback about this or other training activities, you can join our Training discussion group.
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This is a moderated group.

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