


# Fundamentals of Emergency Communications




Santa Clara County ARES®/RACES

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## Learning Objectives

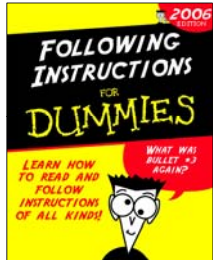


- At the end of this class, you will be able to
  - Describe the Disaster Service Worker program, including your responsibilities as a participant
  - Describe the purpose and appropriate usage of the main Santa Clara County ARES/RACES nets
  - Describe and execute the proper procedures for mobilization, tracking, and demobilization, including the use of the Resource Net
  - Properly complete an ICS 214 Log form
  - Properly complete, send/receive an ICS 213 Message Form
  - Understand basic net control duties, like handling Mike-Mike reports

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## Housekeeping

- Refreshments
- Pen/pencil & paper
- Cell phones & pagers
- Side conversations
- Questions
- Breaks
- Restrooms
- In case of emergency



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## Today's Agenda

- Disaster Service Worker
- Santa Clara County Nets
- Mobilization, Tracking, Demobilization
- Logging
- Message Handling
- Net Control
- Action Items


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## Introductions

- Name
- Call Sign
- City



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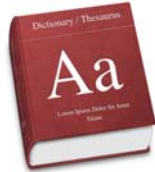
Registration and Rules

## DISASTER SERVICE WORKER

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### What is Disaster Service?

- All activities authorized by and carried on pursuant to the California Emergency Services Act, including approved and documented training necessary or proper to engage in disaster activities.



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### When am I covered as a DSW?

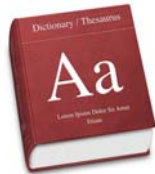
- When registered ...
- ... and when activated and assigned by proper authority ...
- ... and while performing your duties in accordance with DSW rules
  - Performing only duties for which you are trained
  - Performing while under supervision

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### What is a Disaster Service Worker?

- Any person registered by an accredited Disaster Council for the purpose of engaging in disaster service without pay or other monetary consideration.



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### The Elements of Disaster Service Activation

- Registration
- Training and Preparation
- Activation
- Assignment
- Supervision

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### What's in it for me?

- Workers Compensation coverage by State Compensation Insurance Fund
  - Death Benefit
  - Wage Continuation
  - Medical Treatment
- Limited liability protection when acting within scope of assignment and training
- In case of emergency, be sure your spouse/significant other/family are aware of this coverage
  - See DSW brochure on <http://www.scc-ares-races.org/operations.html>

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### Registration




- Only an "authorized person" person may register you
  - For county: District Emergency Coordinator and county officials
  - For city: appropriate city officials
- You must have a current DSW registration on file with the entity that is activating you
  - County DSW required for county drills and events
  - City DSW required for local city activities
- DSW registration does not expire, but the Blue Cards do!
- Personal information must be verified every five years

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## Training



- Everyone is responsible for their own training
- Santa Clara County ARES/RACES:
  - Online materials, procedures, forms, ... at <http://www.scc-ares-races.org>
  - Training courses: Introduction, Fundamentals, Field Operations, Net Control, Packet, Shadow, and more ...
  - Quarterly Drills
  - Mutual Aid public service event coordination (fireworks, races, parades, ...)
  - Mutual Aid Communicator Program
    - MACs earn qualifications in various disciplines, at various levels
- City training programs also available
  - Usually focus on city-specific procedures and capabilities
- Incident Command System (ICS) training - FEMA
  - Standardized, on-scene, all-hazards incident management approach
- Other training – Red Cross, CERT, etc.

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## Supervision



- You must be under continuous supervision while on your assignment
- This means you must be reachable by radio at all times
- And that means you must have a radio that can be operated with reasonable range while you are in your car, traveling to your destination
- Get a magnetic mount antenna and headset!
- Know which repeaters to use from which locations
  - In particular, travel to Southern part of county requires switching repeaters and bands

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## Activation



- Only an entity with whom you are registered may activate you
  - County will activate you for county drills and mutual aid situations
  - Some local city events may not involve requests for county mutual aid; you must be registered with the local city
- An "Activation Number" will be issued
  - Example activation number: SCC-11-06
  - Example training activation number: MTV-11-01T
- Write it down!
  - Consider it your confirmation number that you were properly activated under DSW rules

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## Your To Do List (so far)



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers' Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
  - Includes minimum Radio Kit:
    - 2m/440 HT
    - Magnetic mount antenna
    - Earbud/earphone or speaker/mic/earbud or headset
    - Batteries sufficient for 12 hours
    - Connectors for different antenna types
  - Notebook and pens
  - Thomas Guide (covering Santa Clara County)

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## Assignment



- Usually, assignment is made by radio
  - On Resource Net (county)
  - On city net (city)
- Location will be given by common name, address and Thomas Bros. map coordinates
  - e.g., Mountain View Fire Station 4; 229 N. Whisman Rd.; Thomas Guide page 812 grid A5
- Write it down!
- Have a county Thomas Guide available at all times!
- Standard shifts are 8 hours
  - Be prepared for 12 hours
  - Go Kit: batteries, connectors, food, water, clothing, essentials
  - For full go kit contents: <http://www.scc-ares-races.org>

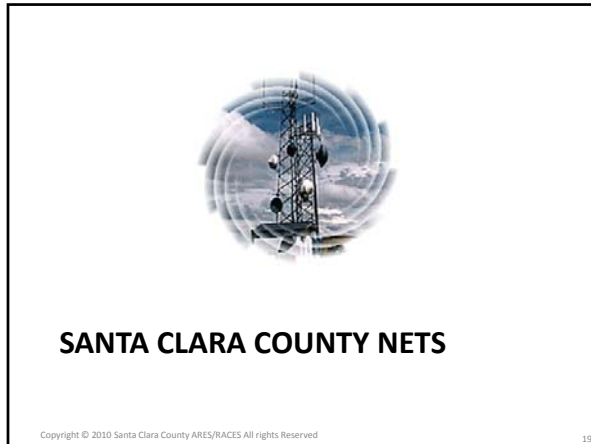
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## The "Go Kit" List



- 2 Hr Carry Kit
  - Keep nearby at all times
  - Resource Net Level 1
    - Damage Reports
  - Resource Net Level 2
    - City net Check-ins
- 12 Hr Go kit
  - Fully independent operations for 12 hrs
  - Return home to retrieve
- Extended Kit (optional)

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### Santa Clara County Primary Emergency Nets

- Resource Net
  - Usually the first county net activated
  - Official traffic; type of traffic depends on level of operation
- Message Net
  - Usually the second county net activated
  - Official message traffic for served agencies
- City and Tactical Nets
  - Official and unofficial traffic of a local nature
- Command Net
  - Official traffic between Operational Area (county) command staff, and between county and city Emergency Operations Centers (EOCs)
- Hospital Net
  - Official traffic with Dept. of Public Health

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### What is an Amateur Radio Net?

- An Amateur Radio Net exists whenever 3 or more operators are in simultaneous contact with each other for the purpose of exchanging information or passing informal or official traffic.

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### Resource Net

- Usually the first net activated at the county level
- Directed net
- Three levels of operation
  - Level 1: Information gathering (initial damage reports)
    - Earthquake Modified Mercalli (“Mike-Mike”) reports; flood levels; power; etc.
  - Level 2: City EOC check-ins and referral to city tactical nets
    - City EOCs check-in and announce status; individuals referred to city nets
  - Level 3: Coordination of mutual aid; tracking county resources
    - Mobilization (resource check-ins, activations and assignments)
    - Location/Travel tracking (you MUST be in contact while traveling)
    - Demobilization (resource release, tracking during return home)
- Frequencies (<http://www.scc-ares-races.org>)
  - Primary AA6BT 146.115 (+) 100.0
  - North W6ASH 145.270 (-) 100.0
  - South N6NAC 444.625 (+) 110.9 (South of 101 & 85; South San Jose)

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### Types of Nets

- Open Net
  - Stations call each other directly to pass traffic
- Directed Net
  - Stations call only net control directly, go direct to other stations only with net control permission

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### Message Net

- Usually the second net activated at the county level
- Directed net
- Official message traffic for served agencies
  - Typically: cities to/from county; agencies to/from county
- Formal messages
  - Official Message Form (ICS 213-SCCo)
  - All messages and responses numbered and tracked
- Informal messages
  - “Los Altos EOC is checking in ...”
  - “Please check packet station for ...”
  - “Please tell Joe to call me on the Command Net.”
- Frequencies (<http://www.scc-ares-races.org>)
  - Primary W6TI 147.360 (+) 110.9
  - Alternate WB6OQS 146.760 (-) 151.4
  - Alternate K6FB 145.450 (-) 100.0


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### Tactical Nets

- Usually a directed net, but may start up as an informal net
- Established when and where needed
  - Staging areas, checkpoints, rovers, shadows
  - Each city has one or more tactical frequencies; one is for main city net
- Each city activates their city net as soon as possible
  - Handle local resource check-ins, notifications
  - Check-in here first if you want to be released to the county
- Localized, often informal messages
  - “checkpoint 3 reports Dead Man’s creek at 1 foot below flood level ...”
  - “rover 2 reports all runners have now passed rest stop 4 ...”
- May also include formal messages
  - Resource request from school or shelter to city
- Frequencies (<http://www.scc-ares-races.org>)
  - May also be assigned at time of activation

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### Alerting Types



- Self alerting
  - Earthquakes (you can feel them)
  - Floods (you can see them)
  - Other situations where you know there’s a problem
- Non-self alerting
  - Hazardous material spills
  - Local infrastructure failure
  - Other situations where you don’t know a problem has occurred until someone alerts you (phone call, SMS text message, etc.)
- Some situations are both
  - Recent partial county telecom outage – some were not affected, unaware; some were affected but only became aware when they tried to use the phone or Internet or ...
- Either way, once you learn of an incident, next step is Check-In

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### Your To Do List (so far)



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers’ Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
- Learn the nets and their usage
- Frequency lists (county, city); program your radio


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### Resource Net – Level 1



- Purpose: initial damage reports during initial stages of an incident...
- First, make sure everything is okay at home
- Tune to Resource Net repeater
  - Primary AA6BT 146.115 (+) 100.0
  - North W6ASH 145.270 (-) 100.0
  - South N6NAC 444.625 (+) 110.9 (best for South of 101 & 85 in S. San Jose)
- Resource Net Level 1 operations
  - Net Control will be asking for damage reports, flood levels or other info
  - Respond with your call sign
  - When called, respond with city, report, and call sign; use a minimum of words
  - Example using Modified Mercalli scale for an earthquake: “Los Altos, Mike-Mike-4, KE6AGJ”
- Monitor to determine if further escalation will occur
- If you hear your city EOC activate, then proceed to Level 2

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The County Resource Net in Action

## MOBILIZATION, TRACKING, DEMOBILIZATION

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### Example of Resource Net Level 1: Earthquake Damage Reports



- Use the Modified Mercalli (“MIKE-MIKE”) scale
  - Mike-Mike 1 – Not felt at all
  - Mike-Mike 2 – Barely noticed
  - Mike-Mike 3 – Know it was an earthquake somewhere
  - Mike-Mike 4 – Windows, dishes rattle
  - Mike-Mike 5 – Pictures move, doors swing, small items on floor
  - Mike-Mike 6 – Glassware broken, books off shelf, floor lamps topple
  - Mike-Mike 7 – Furniture broken, cannot stand, chimneys fall
  - Mike-Mike 8 – Buildings collapse
- Typical response to request for damage reports
  - NCO: Please report damage using the MIKE-MIKE scale
  - You: KE6AGJ
  - NCO: KE6AGJ, go ahead
  - You: Los Altos, Mike-Mike 4, KE6AGJ

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## Resource Net – Level 2



- Purpose: Referral to city tactical nets
- Listen on the Resource Net for your city EOC to activate
  - Example: “Resource Net Control, Los Altos EOC is now active and accepting check-ins on 146.595 simplex, this is KE6AGJ”
- Switch to your city net frequency (typically a tactical freq.)
  - Check-in to the city net
  - If you’re joining later in the incident, check your city net first
  - If your city doesn’t activate, check-in on county resource net; they may have alternative instructions for you
- City Net Control decides where you are needed
  - City will request you monitor city frequency for possible assignment
  - City may release you to county; if so, return to county resource net

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## Assignment and Activation



- Net Control may call you at some point and offer an assignment
  - Applies to both city and county nets
- If you accept the assignment, you will be activated
  - Do not accept any assignment if you don’t feel safe
  - Do not accept an assignment if you’re not ready to leave
    - You should only be on Resource Net Level 3 if you’re ready for an assignment
- Before leaving home, notify Net Control that you are ready to roll
  - Report street location and last three digits of odometer
- You will be given travel and reporting information
  - Write it down! Often includes important travel restrictions
- While en route, check-in every 15-20 min (or as directed by Net Control)
  - Report your street location and last three digits of odometer
    - e.g. “... location is Highway 101, odometer is 456, this is KE6AGJ”
  - Don’t make Net Control ask you for the information
    - You know what’s needed (street and odometer); be prepared to provide it

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## Resource Net – Level 3



- Purpose: tracking mutual aid and county resources
- Important: You must first be released by your city’s Emergency Coordinator (EC), or an Assistant EC (AEC) in charge
  - Check with your city tactical net first
  - If your city net is not up and you can’t locate your EC, then check-in with county – they may have alternative instructions
- Check-in to Resource Net Level 3 only if you are available for county-wide assignment and you are ready to go
- Some important points:
  - Monitor continuously and respond promptly when called
  - Resources are assigned by matching capabilities to need; not first come, first served
  - You may need to monitor for a long time
  - Notify Net Control if you must leave the net for any reason
- While waiting for an assignment, make sure you are prepared

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## Arriving on Scene



- Pick an appropriate and safe place to park
- STAY in your vehicle and do the following:
  - Tell the Resource Net that you have arrived and you are checking out
  - Check in on the Event Net. They should give you instructions as to where to report next (maybe Staging, maybe another location, etc.)
  - If you CANNOT make contact with Event Net Control, return to the Resource Net and ask for further instructions.
  - Do all this FROM YOUR VEHICLE using the more powerful mobile radio and antenna
  - Do NOT leave your car and walk to the event unless instructed to do so
    - They may not want you there and this violates the County’s standards of operation.

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## Preparation



- Do NOT self-activate!!!
  - Don’t go anywhere, don’t do anything except prepare
- Net Control may or may not make an immediate assignment
  - It may take time for incident command to determine what resources are needed and where they need to be deployed
  - Be patient; pay attention; monitor closely; respond promptly
  - If you are unable to monitor: inform Net Control that you need to leave the net and provide an alternative contact method
- If not immediately activated, use the time wisely to prepare
  - Continue to monitor closely; don’t make the whole net wait on you!
  - Check your go-kit, including batteries, food, water, etc.
  - Check your personal situation: home, family
  - Get yourself ready to leave immediately
  - Then, go about your normal business, but continue to monitor
  - When called, answer promptly!

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## Checking In at the Scene



- At the event, check in where instructed
  - ICS 211A Communications Check-In form (ICS 211A-SCCo)
- Follow the instructions of the local team
  - Be patient; you may be asked to wait until others arrive
  - Be courteous; you are there to help, not run the show
- Remain in constant contact with the local tactical net
  - If you need to go off the air, inform Net control
  - If we loose track of you, you have become part of the problem; we have to go find you!

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### Interacting With Local Authorities



- Approach in the field of vision of the officer
- Keep hands in plain sight
- Greet the officer
- Identify yourself
- Show identification
- State who sent you
- State where you are headed
- State what you will do there
- Request permission to pass
- Thank the officer
- If you have difficulty, do not argue!
  - Walk away (as appropriate) and contact net control to ask for instructions

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### Your To Do List (so far)



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers' Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
- Learn the nets and their usage
- Frequency lists (county, city); program your radio
- **Mobilization, Tracking, Demobilization Procedures**


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### Conducting Yourself at the Scene



- You are there to assist with communications
  - You are not there to manage the incident, nor to manage all comms
- You must be courteous and respectful at all times
  - You are an ambassador for ALL amateur radio!
  - What you do and how you act reflects on ALL of us
  - If you experience difficulty, contact your supervisor or net control
- Your job is to be a communicator
  - You are not to direct traffic, climb towers, move barricades, etc.
    - You are not trained for these; you are not covered by DSW!
  - Do not take on tasks that will interfere with duties as communicator
  - Do not take on tasks or go places if you do not feel safe
  - Do be the best, most effective communicator you can be
- At all times, remain in contact with net control

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Tracking activities and message traffic

## FUNDAMENTALS OF LOGGING

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### Demobilization



- Upon relief at end of assignment, sign out on the ICS-211 form
- Check-IN on Resource Net (or city tactical net)
- Inform Resource Net control that you are proceeding to home
  - Give current street location and last three digits of odometer
- Check-in every 15-20 minutes on the way home
  - Give street location ("Highway 101") and last three digits of odometer
- Check-out when you arrive home
  - Give location ("arrived at home") and state you are checking out
- If you have somewhere else to go, you can check out early, before arriving home
  - You will not be covered under DSW after checking out
- You are responsible for maintaining contact with net control at all times

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### Three Primary Logging Forms



- Form 1
- ICS 214 – Unit Activity Log
- ICS 309 – Communications Log

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**Example 309** (Resource Net)

Example: Tracking Herman Munster from home to assignment

<b>COMM Log</b> ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number <i>Mockingbird Heights Mummy Race</i> <i>RIP-13-13T</i>	2. Operational Period (Date/Time) From: <i>10/31/09 20:00</i> To: <i>10/31/09 24:00</i>		
3. Radio Net Name (for NCOs) or Position/Tactical Call <i>Resource Net</i>		4. Radio Operator (Name, Call Sign) <i>Count Dracula, W6RIP4</i>			
<b>5. COMMUNICATIONS LOG</b>					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
20:00	W6XRL4		NC		Leaving home - Mockingbird Lane ODO 123
20:15	NC		W6XRL4		H&W - Highway 13 - ODO 141
20:30	W6XRL4		NC		Arrived Staging ODO 150; checked out

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**Your To Do List (so far)**



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers' Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
- Learn the nets and their usage
- Frequency lists (county, city); program your radio
- Mobilization, Tracking, Demobilization Procedures
- **Download and learn logging forms (ICS-214, ICS-309)**

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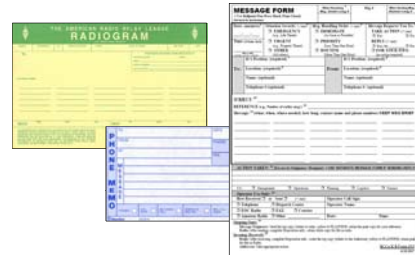
**Example 309** (Event Tactical Net)

Example: Tracking Herman Munster after arrival at assignment and during event

<b>COMM Log</b> ICS 309-SCCo ARES/RACES		1. Incident Name and Activation Number <i>Mockingbird Heights Mummy Race</i> <i>RIP-13-13T</i>	2. Operational Period (Date/Time) From: <i>10/31/09 20:00</i> To: <i>10/31/09 24:00</i>		
3. Radio Net Name (for NCOs) or Position/Tactical Call <i>Event Tactical Net</i>		4. Radio Operator (Name, Call Sign) <i>Wolfman, K6WOOF</i>			
<b>5. COMMUNICATIONS LOG</b>					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
20:31	W6XRL4		NC		Check-In - Assigned tactical *Checkpoint 1 (CPI)*
20:35	CPI		NC		In position at checkpoint
20:45	NC		All Checkpoints		Advise when first mummy arrives at your station
20:50	CPI		NC		First mummy arrives - bib # 1234

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The Message Net in Action

**FUNDAMENTALS OF MESSAGE HANDLING**

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**Summary of Logging Responsibilities**

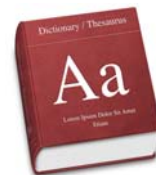
- Everyone fills out a 214 Unit Activity Log (ICS 214-SCCo)
- Only occasional message traffic?
  - Log it on the ICS-214 Unit Log
  - No ICS-309 Communications Log is required
- Net control operator or significant message traffic?
  - Also use an ICS-309 Communications Log
  - Does not replace the need to maintain a 214 Unit Activity Log
- Start your log(s) as soon as you receive your assignment
- Must be legible!
- Hand in your log(s) at the end of your shift

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**What is a Message Net?**

- A network of Amateur Radio Operators acting in an official capacity to pass traffic to or receive traffic from a served agency.



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### Types of Message Nets

- County Message Net
  - Between City and County
  - Between Agency and County
  - Between Operational Area (county) and Region
- Local Net
  - Between Field Stations and City EOC (Emergency Operations Center)

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### Standard Phonetics

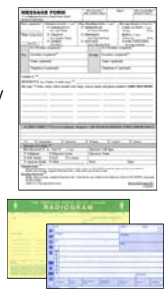
A - alfa (AL-fa)	N - november (no-VEM-ber)
B - bravo (BRAH-voh)	O - oscar (OSS-cah)
C - charlie (CHAR-lee)	P - papa (pah-PAH)
D - delta (DELL-tah)	Q - quebec (keh-BECK)
E - echo (ECK-oh)	R - romeo (ROW-me-oh)
F - foxtrot (FOKS-trot)	S - sierra (see-AIR-rah)
G - golf (GOLF)	T - tango (TANG-go)
H - hotel (hoh-TELL)	U - uniform (YOU-ni-form)
I - india (IN-dee-ah)	V - victor (VIK-tah)
J - juliet (JU-lee-ETT)	W - whiskey (WISS-key)
K - kilo (KEY-loh)	X - x-ray (ECKS-RAV)
L - lima (LEE-mah)	Y - yankee (YANG-key)
M - mike (MIKE)	Z - zulu (ZOO-loo)

- If there is a chance of misunderstanding, spell it out with "I spell":
  - "go to Kay Street" → "go to Kay, I spell kilo alpha yankee, Street"

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### Types of Messages

- Formal messages
  - Typically between field site and city; between city and county; between agency and county
  - Use official ICS Form 213-SCCo (Message Form)
    - ICS = Incident Command System
- Informal messages
  - Simple, tactical messages
  - Longer messages - use dual-copy phone message form, radiogram, or other acceptable form
- All messages are always logged



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### Pronouncing Numerals

0 - zero (ZEE-row)	5 - five (FY-five)
1 - one (WUN)	6 - six (Sicks)
2 - two (TOOO)	7 - seven (SEV-vin)
3 - three (THUH-ree)	8 - eight (Ate)
4 - four (FOH-wer)	9 - nine (NINE-er)

- Zero is always "zero"; never "oh"
- Decimal point is "decimal" or "point"; never "dot"
- Larger numbers are spoken as a string of single digits:
  - 600 = "six zero zero"
- Often preceded by the word "figures"
  - "Please copy 109" → "Please copy figures one zero niner"
  - "Requesting 16 blankets" → "Requesting figures one six blankets"

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### Message Traffic Operator Skills

A good radio operator ...

- ... is as concise as possible
- ... frequently identifies tactical call
  - FCC call only at end of traffic
- ... clearly states the nature of the traffic
  - "I have one priority message for you."
- ... passes or copies messages exactly as written
- ... uses the 213 Message Form
- ... keeps an accurate log
- ... uses proper phonetics, numbers and prowords
- ... passes messages five words at a time
  - and only as fast as you can write them yourself

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### Message Handling Prowords

• SAY AGAIN ...	Repeat – usually used with other prowords
• WORD AFTER	"Say again word after..."
• WORD BEFORE	"Say again word before..."
• BETWEEN	"Say again between... and..."
• ALL AFTER	"Say again all after..."
• ALL BEFORE	"Say again all before..."
• I SPELL	"I spell Alfa, Bravo..."
• FIGURES	"Figures Wun, ZEE-row, NINE-er" (= 109)
• INITIALS	"Echo Oscar Charlie" (= "EOC")

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### ICS 213 Message Form

- Message Numbers
- Header
- Address Info
- Message Body
- Action Taken
- Operator Use

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### Message Form - Address

- To, From
  - ICS Position (required)
    - Planning, Logistics, Operations, Finance, ...
  - Location (required)
    - Santa Clara County EOC, Los Altos EOC, ...
  - Name (optional)
  - Telephone (optional)

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### Message Form – Message Numbers

- Critically important for tracking messages
- Message #
  - YOUR message number (often pre-stamped to ensure uniqueness)
- When Receiving, Sender's Message #
  - If you are receiving a message, put the sender's message number here
- When Sending, Receiver's Message #
  - If you are sending a message, put the receiver's message number here

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### Message Form - Body

- Subject
- Reference
- Message body
  - 5 words at a time; 30 words max
  - Speak slow enough for the other person to copy
  - Pretend you are writing when you send; helps pace your sending speed

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### Message Form - Header

- Date, Time (when message was created)
  - Use 24-hour clock, local time
- Severity
- Handling Order
  - Always handle according to handling order
- Take Action, Reply, FYI
  - Often neglected by untrained; check to make sure sender filled it in

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### Message Form – Action Taken

- Typically for local use – not transmitted via radio
- NOT FOR REPLY!
- Originator may record action they took
  - Who they cc'd
  - What else they did with the message
- Recipient may record action they took
  - Who they cc'd
  - Responded via message # X

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### Message Form – Operator Use

- For tracking how message was handled (received or sent)
- Method
  - For us, we will typically check Amateur Radio
  - But we are first and foremost communicators, so we may send by FAX or telephone or other means
- Operator Call Sign, Name
- Date, Time (when you sent/received the message)

<b>Operator Use Only:</b> <sup>14</sup>		Operator Call Sign:	
How Received <input type="checkbox"/> or Sent <input type="checkbox"/> (✓ one)	<input type="checkbox"/> Telephone	<input type="checkbox"/> Dispatch Center	Operator Name:
<input type="checkbox"/> EOC Radio	<input type="checkbox"/> FAX	<input type="checkbox"/> Courier	Date:
<input type="checkbox"/> Amateur Radio	<input type="checkbox"/> Other		Time:

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### Example Message

- Everyone will need a 213 Message Form
- I will send a message to all stations using a pacing station
- Everyone will copy the message
- After the pacing station acknowledges, you can ask for fills
- We'll compare at the end

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### Recommended Transmission Process

- Sender
  - Message #, Date, Time
    - Wait for ACK
  - Severity, Handling, Requests
    - Wait for ACK
  - To, From
    - Wait for ACK
  - Subject
    - Wait for ACK
  - Reference (if any)
    - Wait for ACK
  - Message - 5 words at a time
    - Wait for ACK after each 5 words
  - "End of message"
- Receiver
  - ACK followed by receiver's message #
  - "This is <call sign>"
  - Fill in Operator Info
- Sender
  - ACK Msg # / Fill in receiver's message #
  - Fill in Operator Info
  - "This is <call sign>"

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### How'd You Do?

- Should look like →
- Is it EXACTLY correct?
- Complex spelling
- Heterographs
  - "to" vs. "too" vs. "two"
  - "for" vs. "four"
  - "ate" vs. "eight"
- Did you add?
  - Your message number
  - How received
  - Amateur Radio
  - Call sign
  - Name
  - Date
  - Time

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### Sending to More Than One Station

- Announce message
  - "All Stations, All Stations, Stand by to copy one routine message"
- Pick a pacing station
  - "Mountain View, will you be my pacing station?"
  - "Mountain View acknowledges"
- Send message as normal
  - Pacing station provides acknowledgements during message transfer
- Ask for acknowledgements from other stations
  - "I will now poll all stations for acknowledgements. When I call you, respond with your message number or request a fill."
  - "Los Altos" ....
  - Gives stations an opportunity to ask for "fills" or repeats
  - Confirms which stations received the message

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### Get it Right!

- Our task is to effectively transfer message traffic
  - Priority ONE is to get the message through accurately
  - Priority two is to do so as quickly and efficiently as possible
- We don't alter the message, we send it as written
- If we don't get that right, there's no point in us being there
- Get it right – the first time, every time
- Remember:
  - "For want of a letter, a word was lost.
  - For want of a word, the message was lost.
  - For want of a message, a life was lost."

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### Your To Do List (so far)



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers' Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
- Learn the nets and their usage
- Frequency lists (county, city); program your radio
- Mobilization, Tracking, Demobilization Procedures
- Download and learn logging forms (214, 309)
- **Phonetics**
- **ICS 213 Message Forms; informal message forms**
- **Practice message passing**


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### Who is NCO After the Earthquake??



- It could be you!!
- Come up on the Resource Net
- Listen for active stations
- If no net currently exists, announce that you are organizing a net to collect damage information
- Inform that you have no ability to dispatch help
- Take gross reports of damage until relieved
  - Use the Modified Mercalli ("MIKE-MIKE") Scale (1-8)
- Be prepared to pass summary information to a more experienced Net Control operator when they are ready to take over

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Good operators are made, not born!

## INTRODUCTION TO NET CONTROL


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### Example Damage Survey Net

- Net Control
  - "This is <call sign>. Is there a net on this frequency?" (none heard)
  - "This is <call sign>, net control for the Santa Clara County Resource Net."
  - "I will now take reports of damage using the Mike-Mike scale."
  - "I do NOT have the ability to dispatch resources."
  - "Please report only city, mike-mike number, and call sign"
  - "I'll take the first five call signs" ...
- Class
  - Call in your damage report using the mike-mike scale
  - Example:
    - NCO: "I will take the next 5 call signs"
    - You: "KE6AGJ"
    - NCO: "KE6AGJ"
    - You: "Los Altos Hills, Mike Mike 4, KE6AGJ"

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### Net Control Operator



- The most essential part of any emergency net is the character and skill of the net control operator (NCO)
- The NCO coordinates all net activity and shapes the efficiency (or inefficiency) of the net operation
- The NCO excels in several key areas
  - Station quality
  - Personal and mental fitness
  - Net and resource management
  - Operating technique
  - Directing traffic

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### Some Rules of Directed Nets



- State the existence and purpose of the net and your call sign about every 10-15 minutes
  - Shorter intervals on light traffic nets; longer on heavy traffic nets
- Emergency traffic always trumps the net
- Insist that all net traffic go through net control
- Allow non-net traffic during breaks in net traffic
- Just because you have a net does not mean you own the frequency
  - Ask politely if others will yield
  - Be prepared with alternate frequency

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### Your To Do List (so far)



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers' Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
- Learn the nets and their usage
- Frequency lists (county, city); program your radio
- Mobilization, Tracking, Demobilization Procedures
- Download and learn logging forms (214, 309)
- Phonetics
- ICS 213 Message Forms; informal message forms
- Practice message passing
- **Net control practice, practice, practice (weekly nets)**

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### Good Operators are Made, not Born!


- Being a high quality operator isn't really hard
- But it does take Practice, Practice, Practice
- Listen to the pros – Santa Clara County Fire 154.250
- Be the best that you can be!!
- Strive to sound like professionals!!

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## Summary

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### Your To Do List



- Become familiar with: <http://www.scc-ares-races.org>
- County and City DSW registration
- Inform family of Workers' Comp provisions
- Go Kit (equipment, personal gear, documentation, ...)
- Learn the nets and their usage
- Frequency lists (county, city); program your radio
- Alert and Activation Procedures
- Download and learn logging forms (214, 309)
- Phonetics
- ICS 213 Message Forms; informal message forms
- Practice message passing
- Net control practice, practice, practice (weekly nets)
- **More training, training, training >> <http://www.scc-ares-races.org>**

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### Summary



- You should now be able to
  - Describe the Disaster Service Worker program, including your responsibilities as a participant
  - Describe the purpose and appropriate usage of the main Santa Clara County ARES/RACES nets
  - Describe and execute the proper procedures for mobilization, tracking, and demobilization, including the use of the Resource Net
  - Properly complete an ICS 214 Log form
  - Properly complete, send/receive an ICS 213 Message Form
  - Understand basic net control duties, like handling Mike-Mike reports

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## Thank You!

Questions, comments, suggestions?

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