# Year-End Summary

## Review of Changes and Updates to
## Core Classes

Santa Clara County ARES®/RACES
Last Updated 2010-Nov-30

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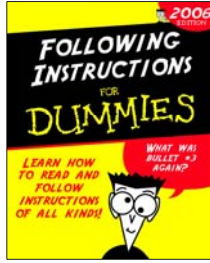
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## Learning Objectives

By the end of this class, you should be able to:

- Explain the county arrival and departure process
- Understand and explain proper message handling techniques
- Explain the changes to the County Frequency Plan
- Understand and implement the changes to SCCo packet operations
- Understand the new packet infrastructure
- Identify the changes to Outpost & PacFORMS
- Explain message tracking rationale and proper message passing techniques

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## Housekeeping

- Pen/pencil & paper
- Cell phones & pagers
- Side conversations
- Avoid spurious transmissions, hidden transmitters, and jamming the instructor….
- Questions
- Breaks
- Restrooms
- In case of emergency

2006 EDITION
FOLLOWING INSTRUCTIONS FOR DUMMIES
LEARN HOW TO READ AND FOLLOW INSTRUCTIONS OF ALL KINDS!
WHAT WAS BULLET #3 AGAIN?

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### Agenda

- Review Field Ops
  - Activation, process, forms, and arrival and departure process.
- Message Handling
- Logging
- Packet
  - Web pages, network structure, network features, client software features, weekly packet check-in process.
- MAC Program
  - Typical Assignments, entrance requirements, tracking and completing the process, earning a qualification, tracking your status, new assignment process, and more.

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### FIELD OPERATIONS

- Preparation

- Assignment and Activation

- Arriving on Scene

- Demobilization

- Message Handling Techniques

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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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### Assignment and Activation

- Net Control will 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
  - You don't have to accept any assignment if you don't feel safe
  - You shouldn't accept an assignment until you are immediately ready to leave
- 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 wait for Net Control to call you
    - Net control may be busy with tasks that you may not hear on the net
  - Don't make Net Control ask you for the information
    - You know what's needed (street and odometer) so don't slow down the whole net

### RACES ASSIGNMENT FORM

**RACES Assignment Form**
**Santa Clara County ARES/RACES**

| | |
|---|---|
| RACES ACTIVATION NUMBER: | |
| ASSIGNMENT TASK: | |
| ASSIGNMENT ADDRESS (Street, City): | |
| THOMAS GUIDE MAP INFO: | Page:    Grid: |
| LOCAL CONTACT: Name | |
| LOCAL CONTACT: Phone Number | |
| LOCAL CONTACT: Frequency, PL | |
| START TIME: | |
| LENGTH OF ASSIGNMENT: | |
| STARTING ODOMETER READING: | |

**TRAVEL FREQUENCY (RESOURCE NET)**

| REPEATER | FREQUENCY (offset) | TONE (PL) |
|---|---|---|
| NARET (Primary) | 145.110 (+) | 100.0 |
| LINKED TO WRASH (North Valley) | 146.370 (-) | 100.0 |
| LINKED TO NENAC (South Valley) | 444.825 (+) | 110.9 |

http://www.scc-ares-races.org/operations/forms/RACES_Assignment_Form.pdf

### Arriving on Scene

- When you arrive at your destination, <u>STAY</u> in your vehicle and do the following:
  - Tell the Travel Net you have arrived and you are checking out.
  - Make contact with the Event Net control, announce that you have arrived and are checking IN. 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 travel Resource Net Control and ask for further instructions.
  - Do all this FROM YOUR VEHICLE using the more powerful mobile radio.
  - Do NOT leave your car and walk to the event – they may not want you there and this violates the County's standards of operation.
- At the Event, check in where instructed
  - ICS 211A Communications Check-In form (ICS 211A-SCCo)
- Follow the instructions of the local team
  - Be <u>patient</u>; 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 lose track of you, we must spend time and resources to find you;  you have become part of the problem

### Relief Briefing
**Source: "Performance Standards and Best Practices"**

- Provides complete and accurate relief briefings, including the following (as appropriate for the situation)
  - Assignment, activation number,
  - Served agency and official in charge, including how they are recognized
    - E.g. vests, hats, badges, etc.
  - Frequencies, tactical calls, net station locations, emergency contact numbers
  - Who to contact regularly
  - Radio, power supply, antenna information
  - Nearest telephone: location and number
  - Location of toilet, water, food, first aid, and other supplies
  - Summary of previous operational period
  - Current status of people, resources, incident (as it relates to communications)
  - Pending issues for next operational period (if any)
  - Introduces replacement to the rest of the team

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### Demobilization



- At the Event, upon relief or at end of assignment, sign OUT where instructed
  - ICS 211A Communications Check-In form (ICS 211A-SCCo)
- Go to your vehicle and do the following from your vehicle using the more powerful mobile radio.
  - First check OUT with the Event Net control.
  - Then check IN on travel Resource Net (be it City or County). Inform them you are proceeding to home.
- Give 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
- You are responsible for maintaining contact with net control at all times

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### MESSAGE HANDLING

- Recommended Process

- Exercise

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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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## 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

**MESSAGE FORM**
▶ Use Ballpoint Pen–Press Hard; Print Clearly
(See back for instructions)

| | When Receiving Msg.: Sender's msg. # | Msg. # | When Sending Msg. Receiver's msg. # |

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## Message Handling 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          "Alfa, Bravo…"
- FIGURES         "Figures Wun, ZEE-row, NINE-er" (= 109)

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### Pronouncing Numerals

| | |
|---|---|
| 0 - zero (ZEE-row) | 5 - five (FY-ive) |
| 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"

### 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

### 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

## Exercise

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## FREQUENCY PLAN CHANGES

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## Frequency plan changes

| | | | | | | | GILROY |
|---|---|---|---|---|---|---|---|
| Operational Area | Channel Name | Resource Name | R/S | Frequency | OS | PL | Notes | Reviewed |
| Gilroy | Tactical-1 | Simplex | S | 147.480 | | | | Nov-2010 |
| Gilroy | Tactical-2 | Simplex | S | 146.445 | | | | Nov-2010 |
| Gilroy | Tactical-CERT | Simplex | R | 146.595 | | | | Jan-2010 |
| Gilroy | Packet-2M | Simplex | S | 144.910 | | | | Jan-2010 |
| Gilroy | Packet-440 | Simplex | S | 433.530 | | | | Jan-2010 |

| | | | | | | | MORGAN HILL |
|---|---|---|---|---|---|---|---|
| Operational Area | Channel Name | Resource Name | R/S | Frequency | OS | PL | Notes | Reviewed |
| Morgan Hill | Tactical-1 | Simplex | S | 146.490 | | | | Nov-2010 |
| Morgan Hill | Tactical-2 | Simplex | S | 147.540 | | | | Nov-2010 |
| Morgan Hill | Tactical-CERT | Simplex | S | 146.550 | | | | Nov-2010 |
| Morgan Hill | Packet 2M | Simplex | S | 144.910 | | | | Jan-10 |

| | | | | | | | SANTA CLARA |
|---|---|---|---|---|---|---|---|
| Operational Area | Channel Name | Resource Name | R/S | Frequency | OS | PL | Notes | Reviewed |
| Santa Clara | Tactical | Simplex | S | 147.510 | | | | Jul-08 |
| Santa Clara | Tactical Alt 1 | Simplex | S | 147.465 | | | | Nov-2010 |
| Santa Clara | Tactical Alt 2 | Simplex | S | 145.555 | | | | Jul-08 |
| Santa Clara | ATV Broadcast | ATV | S | 434.000 | | | | Jul-08 |
| Santa Clara | Packet 220 | Simplex | S | 223.660 | | | | Jul-08 |

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## Frequency plan changes

| NASA-AMES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Operational Area | Channel Name | Resource Name | R/S | Frequency | OS | PL | Notes | Reviewed |
| NASA-Ames | Tactical | Simplex | S | 147.420 | | | | Nov-2010 |
| NASA-Ames | Tactical Alt 1 | Simplex | S | 146.445 | | | | Nov-2010 |
| NASA-Ames | Tactical Alt 2 | Simplex | S | 147.585 | | | J | Jul-2008 |
| NASA-Ames | Event 1 | Simplex | S | 146.505 | | | | Nov-2010 |
| NASA-Ames | Event 2 | Simplex | S | 146.490 | | | | Nov-2010 |
| NASA-Ames | Command | NA6MF | R | 145.250 | - | 123.0 | | Jul-2008 |
| NASA-Ames | Packet 220, Primary | Simplex | S | 223.660 | | | | Jul-2008 |
| NASA-Ames | Packet 2M, Secondary | Simplex | S | 144.910 | | | | Jul-2008 |

| SARATOGA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Operational Area | Channel Name | Resource Name | R/S | Frequency | OS | PL | Notes | Reviewed |
| Saratoga | Command | K6SA | R | 146.655 | - | 114.8 | | Jul-08 |
| Saratoga | Tactical Alt | Simplex | S | 146.505 | | | | Jul-08 |
| Saratoga | Tactical Alt 2 | Simplex | S | 146.595 | | | | Nov-2010 |
| Saratoga | Tactical HF | USB | S | 28.400 | | | | Jul-08 |
| Saratoga | Packet 220 | Simplex | S | 223.660 | | | | Jul-08 |

## Frequency plan changes

| STANFORD U | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Operational Area | Channel Name | Resource Name | R/S | Frequency | OS | PL | Notes | Reviewed |
| Stanford U | Primary | N6BDE | R | 440.200 | + | 123.0 | | Jul-08 |
| Stanford U | Tactical-1 | Simplex | S | 146.490 | | 123.0 | | Jul-08 |
| Stanford U | Tactical-2 | Simplex | S | 146.550 | | 123.0 | | Nov-2010 |
| Stanford U | Tactical | W6YX | R | 1282.500 | - | 88.5 | O | Jul-08 |
| Stanford U | Tactical | WA6ITV | R | 1292.550 | - | 88.5 | P | Jul-08 |
| Stanford U | Packet tcp/ip 1200 | W6YX-9 | S | 145.750 | | | | Jul-08 |
| Stanford U | Packet tcp/ip 9600 | W6YX-10 | S | 433.430 | | | | Jul-08 |
| Stanford U | Packet 220 | Simplex | S | 223.660 | | | | Jul-08 |

**http://www.scc-ares-races.org/freqs/freqs.html**

## LOGGING

## ICS 214 – Unit Activity Log

- Our version:  ICS 214-SCCo
- A record of all major activities and events
- EVERYONE fills out a 214
  - Individuals:  a unit of one
  - Teams:  Team leader
- Occasional message traffic?
  - Just log it right on the 214
  - No need to use a 309 Comm Log
- Use multiple pages if necessary
- Start it when you receive your assignment
- Turn in to supervisor at end of shift

## Example 214  (individual field communicator at checkpoint)

| UNIT LOG<br>ICS 214-SCCo<br>ARES/RACES | 1. Incident Name and Activation Number<br>*Mockingbird Heights Mummy Race*<br>*RIP-13-13T* | 2. Operational Period (Date/Time)<br>*10/31/09*<br>From: *20:00*  To: | *10/31/09*<br>*24:00* |
|---|---|---|---|
| 3. Unit Name / Tactical Call / Designators<br>*Checkpoint 1* | | 4. Unit Leader (Name, Call Sign, ICS Position)<br>*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 (From / To / Msg# / Msg Text) |
| *20:00* | *Received assignment; leaving home* |
| *20:30* | *Arrive at Incident Command Post - Gateman, Goodbury & Graves funeral home* |
| *20:30* | *Assigned to Checkpoint 1* |
| *20:35* | *Arrived at Checkpoint 1* |

## ICS 309 – Communications Log

- Our version:  ICS 309-SCCo
- Net Control Operators and stations with high message traffic
- Columns help organize key message tracking info
- Does not replace 214
  - EVERYONE fills out a 214
- Turn in to supervisor at end of shift
- Instructions on back

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

## Example 309   (Resource Net)

**Example:  Tracking Herman from home to event ICP**

| COMM Log ICS 309-SCCo ARES/RACES | 1. Incident Name and Activation Number *Mockingbird Heights Mummy Race* *RIP-13-13T* | | 2. Operational Period (Date/Time) From: *20:00*  *10/31/09*  To: *04:00*  *11/1/09* | |
|---|---|---|---|---|
| 3. Radio Net Name (for NCOs) or Position/Tactical Call *Resource Net* | | | 4. Radio Operator (Name, Call Sign) *Wolf Man,  W6WOOF* | |
| 5.    COMMUNICATIONS LOG | | | | |
| Time (24:00) | FROM Call Sign/ID  Msg # | TO Call Sign/ID  Msg # | Message | |
| . . . | . . . | | . . . | |
| 23:00 | W6XRL4 | | *Leaving home – 1313 Mockingbird Lane ODO 123* | |
| 23:15 | | W6XRL4 | *H&W - Highway 13 – ODO 141* | |
| 23:30 | W6XRL4 | | *Arrived ICP ODO 150; Check-Out* | |

- Optional – instead "NC" or "NCO" for yourself, leave blank
  - Makes it easier to see which messages were from/to field operators

## Example 309   (Event tactical/message net)

**Example:  Herman Munster's net control log**

| COMM Log ICS 309-SCCo ARES/RACES | 1. Incident Name and Activation Number *Mockingbird Heights Mummy Race* *RIP-13-13T* | | 2. Operational Period (Date/Time) From: *20:00*  *10/31/09*  To: *04:00*  *11/1/09* | |
|---|---|---|---|---|
| 3. Radio Net Name (for NCOs) or Position/Tactical Call *Event Tactical Net* | | | 4. Radio Operator (Name, Call Sign) *Herman Munster,  K6XRL4* | |
| 5.    COMMUNICATIONS LOG | | | | |
| Time (24:00) | FROM Call Sign/ID  Msg # | TO Call Sign/ID  Msg # | Message | |
| 00:00 | W6DRAC | | *Check-In – Assigned tactical Blood bank 1 (BBANK1)* | |
| 00:05 | | All Checkpoints | *First mummy on course; advise when at your station* | |
| 00:15 | BBANK1   107 | MH-ICP   204 | *Blood bank is running short of 0+ blood* | |
| 00:20 | CP1 | | *First mummy passing checkpoint 1* | |

- Use Msg # column for formal message nbrs; otherwise blank
- For tactical messages, you can leave to/from blank if yourself

## Resource Net Status Tracking with a Form

| Resource Net Travel Tracking Tool | 1. Incident Name and Activation Number: | | 2. Operational Period (Date / Time): From:   To: | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3. Call Sign | 4. Traveler Status  [00:00 24-hour ~or~ ✓ ] | | | | | | | 5. Notes |
| | Check-In | Depart | H&W-1 | H&W-2 | H&W-3 | H&W-4 | Arrive | Check-Out |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

- Don't get too hung up on the perfect form, t-card or whatever
  - You should be able to do this from anywhere, with anything
- The task is to track status; method is up to you
  - Who are you tracking?  What is their status?  When do you need to contact them next?
- Make sure you track status correctly!

### Interactive Exercise

| Resource Net Travel Tracking Tool | 1. Incident Name and Activation Number: *Classroom Exercise*   *XSC-10-01A* | | | | | | 2. Operational Period (Date / Time): From: *3/5/10  06:00*  To:  *3/5/10  07:00* | |
|---|---|---|---|---|---|---|---|---|
| 3. Call Sign | 4. Traveler Status  (00:00 24-hour ~or~ ✔ ) | | | | | | | 5. Notes |
| | Check-In | Depart | H&W-1 | H&W-2 | H&W-3 | H&W-4 | Arrive | Check-Out | |
| *N6JRC* | *06:01* | *06:05* | *06:20* | *06:35* | *06:50* | | | | |
| *K6FSH* | *06:02* | ✔ | | | | | *06:14* | ✔ | |
| *KF6ZSQ* | *06:07* | ✔ | *06:21* | ----- | ----- | ----- | ----- | *06:36* | *Requested to leave early* |
| *K6FJC* | *06:08* | *06:32* | *06:47* | | | | | | |
| *KD6SOJ* | *06:15* | ✔ | *06:30* | *06:45* | | | *06:49* | ✔ | |

- The time is now 06:57
- Who has arrived at the destination?
- Who is still on the net?
- Who is en route?
- Who is next up for a health & welfare check?  And when?

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### PACKET

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### Disclaimer

- Just about everything we do with packet in the county has changed during 2010
- Functionality and reliability have been improved
- That means there is much more to learn
- Even more improvements are coming
- This section can only make you aware of the changes; it cannot replace 6+ hours of training plus practice
- Packet users are strongly advised to keep up with the regularly scheduled packet classes

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## Main Packet Page

- Network Update Notices
  - Stay up to date!
- Frequencies & BBS info
- Presentations
- Configuration & Set-up
- Operating & Usage
- Client Software
  - Outpost / PacFORMS
- User Group & Tech Supp
  - Yahoo Group: scc-packet

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

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## Packet Network Infrastructure Changes

|  | Before 2010 | 2010 and beyond |
|---|---|---|
| BBS | • Single BBS<br>• SW: DOS, AA4RE, no supp.<br>• HW: 386; DOS; custom | • 4 BBSs (2 implemented so far)<br>• SW: Linux, JNOS, active devel.<br>• HW: 12v, off-the-shelf |
| Frequencies | • 3 access frequencies shared by 25+ agencies | • Access: 2m, 220 per BBS<br>• Backbone: 440 |
| Performance | • Poor<br>• County EOC bottleneck<br>• Use of digis adds traffic | • Improved<br>• First 7 agencies moved to new structure have excellent perf. |
| RF Coverage | • Poor<br>• Digi on Crystal Peak not dependable | • Improved<br>• Digis upgraded to BBSs with better antennas, filters (early 2011) |
| Redundancy | • None | • Excellent<br>• Each agency will be able to reach at least 2 BBSs |

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## BBS Locations

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## BBS Assignments

- Each city/agency is assigned a primary BBS
  - City/agency EOC and all other users within that city/agency should use that BBS
  - Example:
    - MTV is primary for: Los Altos, Los Altos Hills, Mountain View, NASA/Ames, Palo Alto, Palo Alto Red Cross, Stanford
    - Any sites (EOCs, fire stations, parks, shelters, etc.) or individuals in those cities use the MTV BBS as their primary
- Assignments based on RF propagation study

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## Backup Connectivity

- Each agency also has a backup BBS
- Normal operations:
  - Each agency connects to their primary BBS
- If a particular BBS fails:
  - Agencies on failed BBS connect to their backup BBS
  - Agencies are evenly distributed across backup BBSs
    - Ex: if MTV fails, there will be three other BBSs. So, approximately 1/3 would connect to each of the other BBSs.

Note:  Until Crystal Peak and/or Frazier Peak is deployed, some agencies can only reach the primary.

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## BBS & Freq Page

- BBS info
  - Name
  - Call sign
  - Access frequencies
  - Location
  - Comments
- BBS Assignments & Routing
  - Agency
  - Prefix   (used for many purposes)
  - Primary & Secondary BBS
- Other Nodes
  - Info about other systems in the area

http://www.scc-ares-races.org/freqs/packet-freqs.html

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## Addressing a Message

| To Send to: | Format | Example | Note |
|---|---|---|---|
| Self | <call sign> -or- <call-sign>@<bbs-name> | N6MEF | |
| User on same BBS | <call sign> -or- <call-sign>@<bbs-name> | N6JRC | |
| User on different BBS | <call-sign>@<bbs-name> | KA3L@SCC | 1 |
| Agency on Pri BBS | <tactical-call> | XSCEOC | 2 |
| Agency on BkUp BBS | <tactical-call>@<backup-bbs-name> | XSCEOC@MTV | |
| Multiple addresses | <address>;<address> | N6JRC;KA3L@SCC | 3 |

Notes:

1) BBS names are listed on the packet frequency page.  Individuals are requested to use the same BBS that is assigned to their city/agency
2) City/county tactical calls are auto-routed to their primary BBS
   o …@<bbs-name> is o.k. but not required)
3) Outpost uses the BBS command "SC" to "cc" the additional addressees

## Agency-specific Tactical Calls

- Agencies can request tactical calls for packet
  - As many as you need; must start with agency tactical prefix
  - Example usage: packet operators deployed to shelter, school, …
  - Instructions: http://www.scc-ares-races.org/packet.html
    - "How to Request Tactical Calls"
- Tactical calls also added for Coastal Region and all surrounding counties
- Updates occur approximately once per quarter
- Once added to BBSs:
  - Packet users can log in with city tactical call signs
  - Messages automatically routed to agency's primary BBS
    - Example:  Messages to LOSxxx routed to LOSxxx@MTV
  - Auto-routing can be overridden by specifying desired BBS (@bbsname)

## Packet Comms Outside the County

- Tactical calls created for:
  - OES Coastal Region (located in Oakland)
  - Surrounding counties:  Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Mateo, Santa Cruz
- Many can reach MTV or SCC
- Crystal Peak enhancements should fill in the remaining gaps

## Integrated Installer

- Installs Outpost & PacFORMS
  - Places OutPost in a separate directory (SCCo Packet) so it doesn't impact existing Outpost
- Includes standard TNC and county BBS setups
- Includes all standard county user settings
- Checking version info
  - Start > Programs > PacFORMS > SCCo Version

```
1. Install:    v19
2. Outpost:    v250c007
3. PacRELEASE: v3.3
```

  - Start > Control Panel > Add or Remove Programs

```
Outpost v250c007 and PacRELEASE v3.3 (Install 19)        Size    9.49MB
```

## Standard TNC Settings

- Required when using the county packet net
- Reduces traffic by 80% vs. default settings
- County installer includes for common TNCs
  - Kantronics KPC-3, KPC-3+, Timewave PK-96, Kenwood TM-D710
- Consult documentation for other (AGWPE)
  - http://www.scc-ares-races.org/packet.html

**Configuration and Set-up Instructions**

Standard Outpost Configuration Instructions - 09/11/2010 (PDF - 608 KB)
Standard TNC Parameter Settings - 05/05/2010 (PDF - 456 KB)
INOS Settings for Outpost - 02/24/2010 (PDF - 69 KB)

## Auto-Delivery Receipts

- Sending
  - When you receive a message, Outpost generates the delivery receipt
  - Receipt is sent next time you Send/Receive (not visible in Out Tray)
- Receiving
  - Subject line: "DELIVERED: <your original subject line>"
  - Message contents: the date and time delivered

```
DELIVERED: LOS-101_O/R_ICS213_Test of new auto delivery notification - ...
File  Edit  View  Actions  Windows  Help
Print  Reply  Reply to All  Forward  Delete  Close
Private Message
Bbs:  K6MTV-1                                    Sent: 5/17/2010 19:49
From: xsceoc@scc.ampr.org
To:   loseoc@mtv.ampr.org
Subject: DELIVERED: LOS-101_O/R_ICS213_Test of new auto delivery notification
Your message was delivered to:
xsceoc@scc.ampr.org at 5/17/2010 7:49:39 PM
```

## SCCo Bulletin Areas

- Santa Clara County ARES/RACES uses only two bulletin areas
  - perm
    - Used for bulletins which don't expire
    - Examples:  standard county procedures
  - 30days
    - Bulletins posted here automatically expire 30 days after date posted
    - Examples:  Monday & Tuesday night check-in lists, drills, events, incidents
- County installer enables both bulletin areas

## Testing and Experimenting with Bulletins

- **DO NOT** send test or "unofficial" messages to the county bulletin areas:  "perm" and "30days"
  - Only authorized users should post to "perm" and "30days"
- **DO** test and experiment with the "1daytest" bulletin area

- To retrieve:

**Don't forget to remove it later!**

- To send:
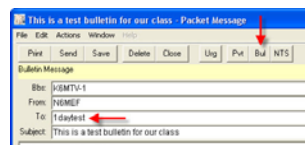
## Automated Standard Subject Line

- County standard Subject: line
  - [Originator Msg #]_[Severity]/[Handling-Order]_[Subject]
  - Documented:  http://www.scc-ares-races.org/packet.html

- Manual entry required for Outpost text messages
- PacFORMS automatically populates in Outpost subject line with info from the form
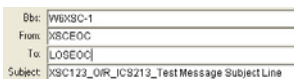
## Consistent PacFORMS Headers

**ICS-213 Message Form**



**Logistics Request**



**City Scan – Flash Report**

## Inbound Message Numbering

- Some agencies number each incoming message with their own number
- ICS 213-SCCo has a place for Sender's vs. Recipient's message number
- Voice messaging procedures have used this for years
- Outpost & PacFORMS now perform this function automatically
- If configured, incoming message numbers appear:
  - In the message list for each folder (Ex.  In Tray)
  - On the message detail when viewed on screen or when printed
  - In the proper box on a PacFORMS message
  - In auto-acknowledgements
  - In the ICS 309 Communications Log

## Inbound Message Numbering



- Instructions:  http://www.scc-ares-races.org/packet.html
  - "How to Configure Outpost for Inbound Message Numbering"

### ICS-309 Communications Log

- Outpost now produces an ICS 309 communications log
- The log can be automated to print on a regular interval
- Configuration Options:
  - Reporting period, content, sort, layout, output destination
- Instructions: http://www.scc-ares-races.org/packet.html
  - "How to Configure Outpost for Automated ICS-309 Printing"

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### ICS 309 Communications Log

| COMMUNICATIONS LOG | | TASK #<br>MEF-10-10-01 | | | Date/Time Prepared:<br>10/08/10  09:37 | |
|---|---|---|---|---|---|---|
| Operational Period:<br>10/01/10 00:00  to  10/08/10 23:59 | | Task Name:<br>Example Log Output | | | | |
| Radio Operator Name:<br>Michael Fox | | | | Station ID:<br>N6MEF | | |
| **LOG** | | | | | | |
| Time | From | To | Msg ID | Local ID | Subject | |
| 10/04 16:44 | N6MEF | SNYEOC | | | Check-In 10/4: N6MEF - Michael - Los Altos - via MTV | |
| 10/05 19:06 | K6FCW@MTV... | N6MEF@SCC... | | MEF120P | RE: Packet Tactical Call Signs 10-Sep-2010 | |
| 10/05 19:07 | N6MEF@SCC... | K6FCW@MTV... | | | DELIVERED: RE: Packet Tactical Call Signs 10-Sep-2010 | |
| 10/05 19:08 | N6MEF@MTV | K6FCW@MTV... | | | RE: Packet Tactical Call Signs 10-Sep-2010 | |
| 10/08 09:29 | N6MEF | K6FSH | MEF401 | | MEF401: new feature test | |
| 10/08 09:29 | SNYEOC@SCC... | N6MEF@MTV... | | | DELIVERED: Check-In 10/4: N6MEF - Michael - Los Altos - via MTV | |
| 10/08 09:32 | N6MEF | K6FSH | MEF402 | | MEF402_O/R_Testing New Feature | |
| 10/08 09:36 | N6MEF | K6FSH | MEF403 | | MEF403_O/R_ICS213_Test of PacFORMS message number | |

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### Weekly Packet Check-In Procedure

- Weekly check-ins have migrated to the county network
- Connect to the primary BBS assigned to your city/agency
- Address your message to:  SNYEOC
  - A new tactical call will soon be added for weekly check-ins; stay tuned
- Use a different PacFORM each week as a way to test and become familiar with them

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### Upcoming Enhancements

- Add next two BBSs:
  - Crystal Peak – December install; January test
  - Frazier Peak – early 2011
- Additional services from the network
  - E-mail gateway: exchange messages with Internet e-mail addresses (early 2011, restrictions likely)
  - AMPR.org gateway: exchange messages and bulletins with other ampr.org (net 44) BBSs around the world (early 2011)
  - BBS gateway: exchange messages and bulletins with traditional amateur BBS network (maybe)
- Additional client software features (Outpost/PacFORMS)
  - Variety of ease of use enhancements

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### MAC PROGRAM

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### What is a Mutual Aid Communicator?

- Amateur radio operator (any license class)

- Willing to be deployed outside their own city
  - Typical shift is 8 hrs; be prepared for 12 hrs

- Meets basic/minimum requirements
  - Administrative
  - Training
  - Equipment
  - Experience
  - Performance
  - Ongoing Participation

- Nominated by EC and approved by CRO

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### Typical MAC Assignments

- Field Communicator
  - Field checkpoints, CERT team communicator, damage surveys, crowd observation and information assistance, shelters, …
- Net Control Operator
  - County EOC, city EOC, tactical nets, staging area nets, …
- Packet Operator
  - County EOC, city EOC, shelter, staging area, …
- Shadow Communicator
  - Public event staff, city or county staff, hospital staff, …
- HF Operator (TBD)
  - Pass traffic out of the county, remote locations, …

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### MAC Program Entrance Requirements



Nomination Requirements:
- Administrative
- Training
- Equipment
- Experience
- Performance
- Ongoing Participation

MIT → EC Nomination → CRO Acceptance → MAC
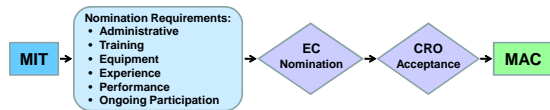
- Candidate is designated "MAC in Training" (MIT) by EC
- Candidate completes nomination requirements
- Emergency Coordinator nominates candidate when ready
- County RACES Chief Radio Officer can accept or decline
- Once accepted, the individual becomes a MAC

Details in the MAC Program Handbook: http://www.scc-ares-races.org/mac

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### County Performance Standards

Santa Clara County ARES®/RACES

Performance Standards
and Best Practices
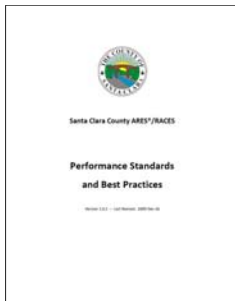
- What are they?
  - An objective set of performance standards for emergency communicators

- Where did they come from?
  - Distilled from county training courses and best practices

- How are they used?
  - Recommended for ALL!
  - Required minimum standard for MACs
  - Objective standard for MAC evals

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### Tracking & Completing the Process
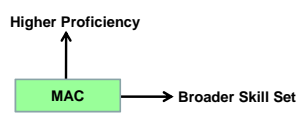


- Candidate
  - Formulates plan with help of EC
- EC
  - Designates candidate as MIT
  - Coaches and facilitates
- Candidate
  - Manages own progress
  - Completes "MAC Candidate Record"
  - Submits form to CRO
- EC
  - Nominates candidate to CRO
- CRO
  - Reviews nomination with staff
  - Notifies candidate of acceptance

http://www.scc-ares-races.org/mac    Copyright © Santa Clara County ARES®/RACES. All rights reserved.    61

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### Becoming a MAC is Just the Beginning

- Opportunities to learn
  - Different cities + different served agencies + MAC drills = higher proficiency + broader skill set
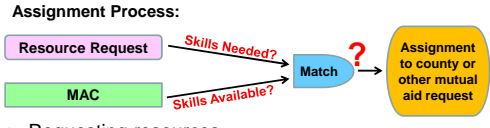


- Existing pool of MACs has widely varying skill sets
  - This occurs naturally, based on individual interest
  - That's part of what makes it fun

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### How to Use Widely Varying Skill Sets?

Assignment Process:



- Requesting resources
  - What types of resources are available to request?
  - How does served agency request specific type of resource?
  - When a resource arrives, what capabilities does he/she have?
- Assigning resources
  - How many MACs do we have that can do X?
  - How does net control know which MAC has which capabilities?
- Previously used individual knowledge to fill the gap
  - Problem: Who can know everyone's skill level? (hint: no one!)

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## MAC Qualification Program Structure

- Take what we already do and divide it into meaningful and useful "buckets" of capabilities
- Structure:

Higher Proficiency
- **Level 3 = Specialist**
- **Level 2 = Advanced**
- **Level 1 = Independent**

MAC → Broader Skill Set
- **Field Communications**
- **Net Control**
- **Shadow**
- **Packet**
- **HF**

## MAC Qualifications at a Glance

Broad Skill Set

Higher Proficiency

| Expertise | Skill Areas | | | | |
|---|---|---|---|---|---|
| | Field Comms | Net Control | Shadow | Packet | HF (future) |
| 3- Specialist | Field Comm 3 | Net Control 3 | Shadow 3 | Packet 3 | HF 3 |
| 2- Advanced | Field Comm 2 | Net Control 2 | Shadow 2 | Packet 2 | HF 2 |
| 1- Independent | Field Comm 1 | Net Control 1 | Shadow 1 | Packet 1 | HF 1 |
| Basic | Mutual Aid Communicator | | | | |

## Earning a Qualification is Straight Forward

- Candidate completes requirements for the skill level
  - Prerequisites, training, participation
- Candidate undergoes a standardized evaluation
  - Conducted during drills, approved public service events, …
  - Candidate simply operates their assignment normally
  - Evaluator observes performance vs. the Performance Standards
  - No "gimmes" and no "gotchas"
  - If passed, qualification is recorded in county database
  - If not, attend more training, get more experience, try again

Skill Level Requirements → Pass Evaluation? → (N back) / (Y) Qualified

### View and Track your MAC Status Online

- View color coded qualification status summary
- Drill down to individual details in each qualification
- Print qualification credentials
- ECs: simplified reports
  - Rosters include qualifications
  - List of MACs by Qual Area
- County DEC/ADECs
  - DSW/Qual dispatch report
  - List of MACs by Qual Area

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

### Migrate to New MAC Assignment Process

### More Info in the MAC Program Handbook

- Table of Contents:
- Performance Standards
- How to Become a MAC
- Roles and Responsibilities
- Resource Assignment & Typing
- Advanced Qualifications
- Evaluations
- Recognition
- Advanced Qualification Definitions
- MAC Response Teams
- ICS and NIMS
- Records Management
- Program Management

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