



2012 End of Year Summary

Santa Clara County ARES®/RACES

Last Updated 03-Dec-2012



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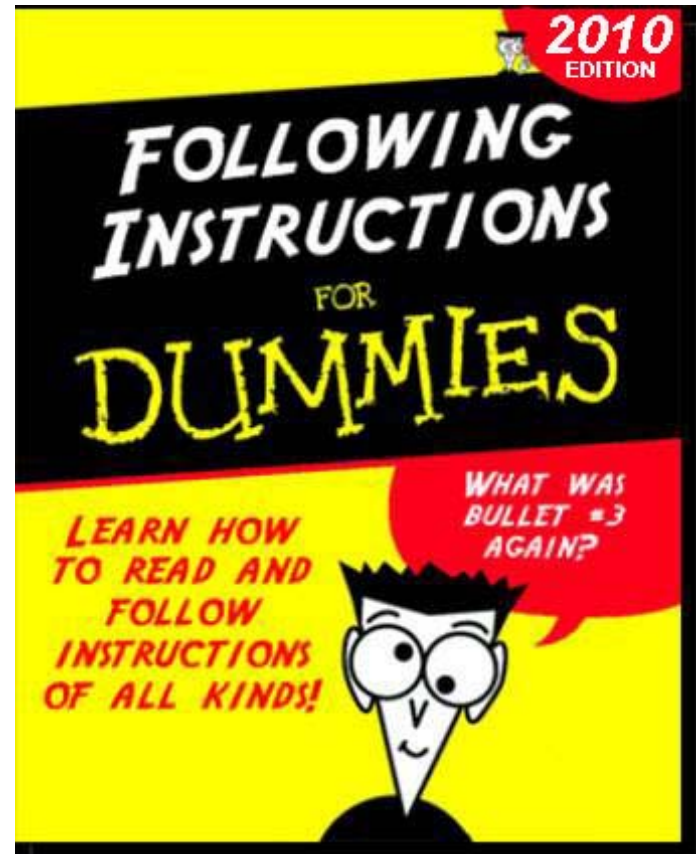
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For additional information on training or any of our programs send an email to: info@scc-ares-races.org

Housekeeping

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



Agenda

- Packet Operations Update
- Net Control Update
- AlertSCC – RACES
- Message Passing
- Message Forms – formal
- Message Forms – informal
- Message Passing – Problem Solving
- Staffing and Policies for Red Cross or other NGOs
- Review of Resource Net Levels
- Activation Process





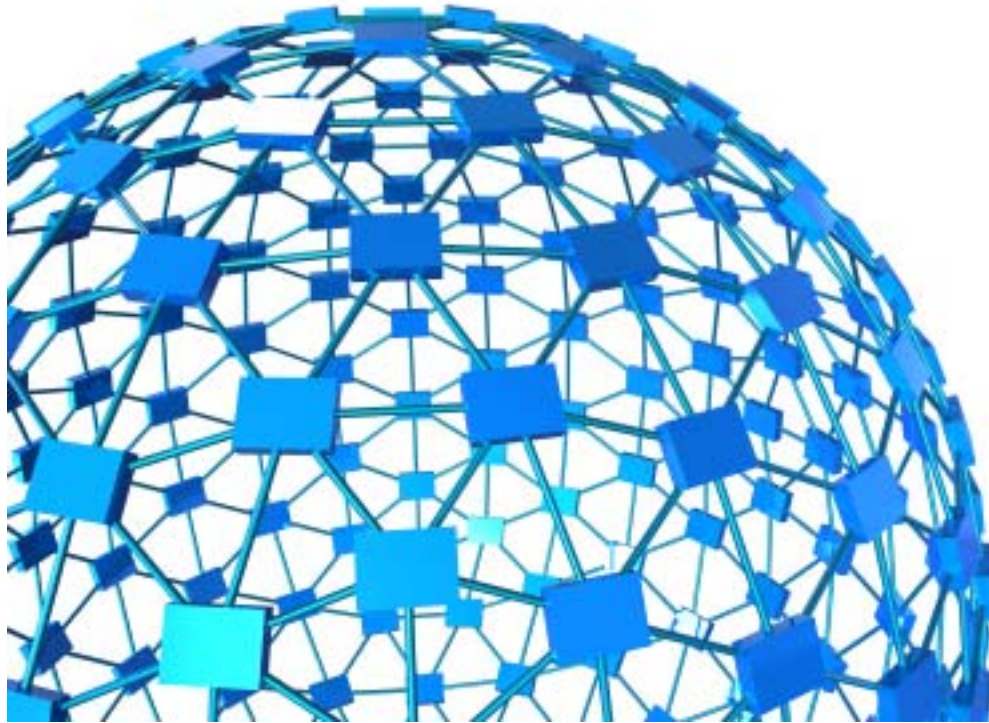
Packet Operations End of Year Update - 2012



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XSC NETWORK STRUCTURE CHANGES

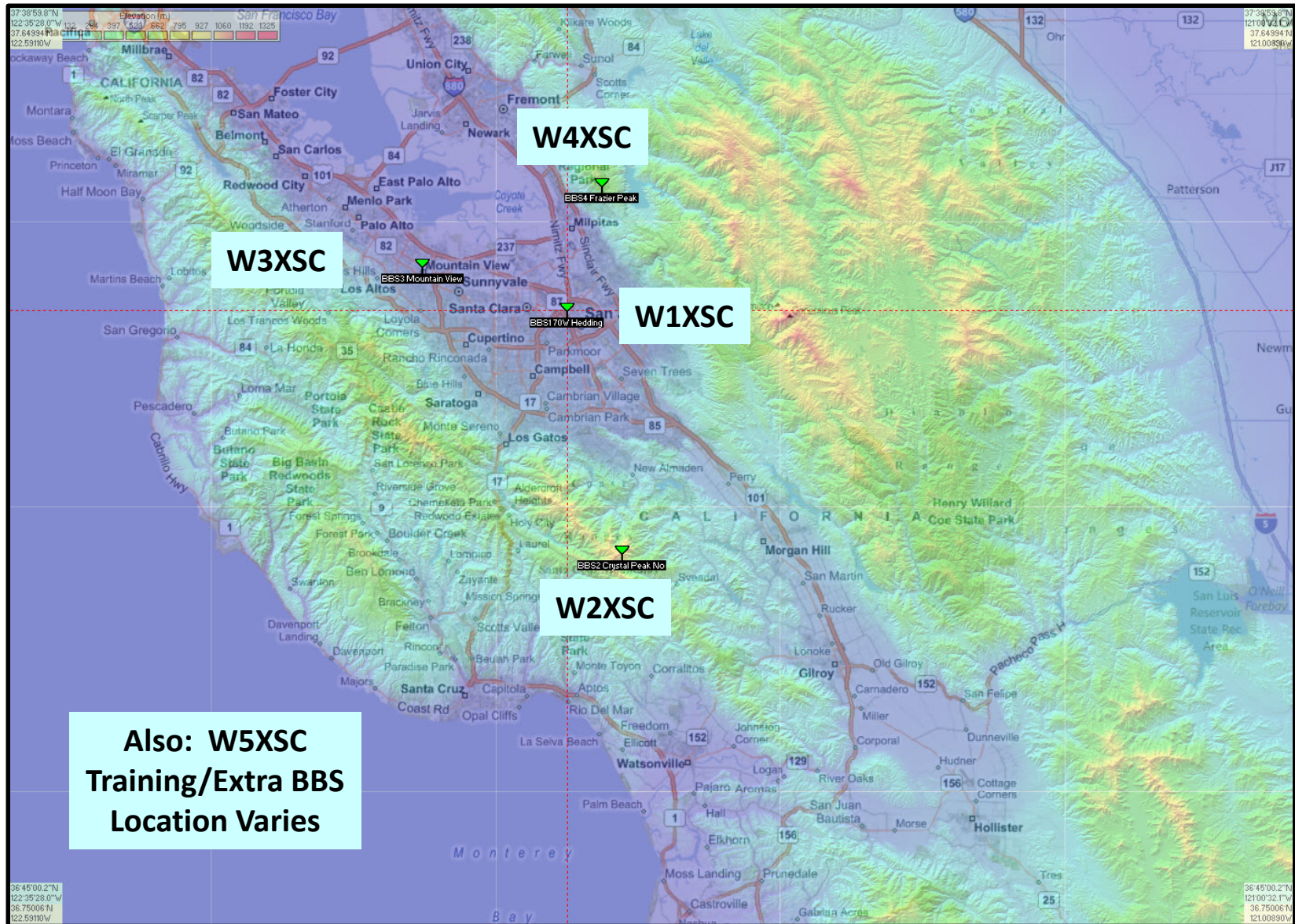
BBS Call Sign Changes

- Individual call signs assigned to each BBS
 - Needed for external BBS to BBS message forwarding
 - Previously, all shared W6XSC

Call Sign	AX.25 Connect	Internet/AMPRnet	BBS Network	NET/ROM Alias
W1XSC	W1XSC-1	w1xsc.ampr.org	w1xsc.#nca.ca.usa.noam	XSCBB1 (future)
W2XSC	W2XSC-1	w2xsc.ampr.org	w2xsc.#nca.ca.usa.noam	XSCBB2 (future)
W3XSC	W3XSC-1	w3xsc.ampr.org	w3xsc.#nca.ca.usa.noam	XSCBB3 (future)
W4XSC	W4XSC-1	w4xsc.ampr.org	w4xsc.#nca.ca.usa.noam	XSCBB4 (future)
W5XSC	W5XSC-1	w5xsc.ampr.org	w5xsc.#nca.ca.usa.noam	XSCBB5 (future)

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

Review: XSC BBS Locations

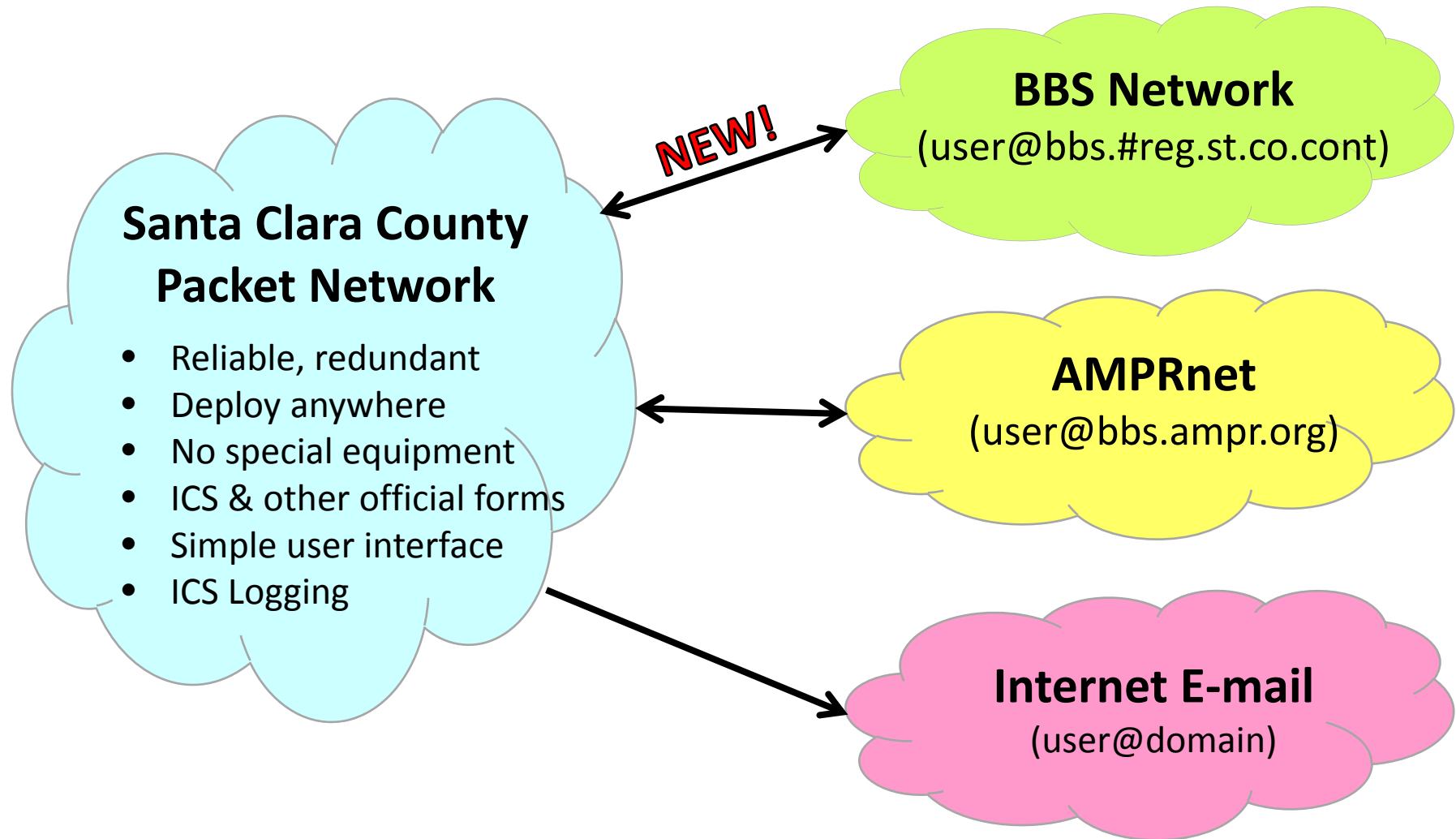


Site Enhancements

- Temperature and power monitoring at Crystal Peak
 - Automated alerts via E-mail & SMS
- Frazier Peak to Crystal Peak signal improvement
 - Relocated antenna at Frazier Peak
 - Better overall coverage on 2m, 1.25m, 70cm
 - Added antenna at Crystal Peak
 - Better coverage of 70cm
 - Confirmed via automated monitoring
- Coming soon:
 - Redistribute cities/agencies across all four BBSs

Connectivity Beyond County Borders

Three worldwide messaging networks covered



Connectivity Beyond County Borders

- New gateway to traditional BBS forwarding network
 - Adds connectivity to traditional BBS network
 - Uses hierarchical addresses
 - `usercall@bbSCALL.#region.state.country.continent`
 - AX.25 over IP (Internet) links from our network to:
 - N0ARY – Mt. Umunhum (South Bay, Monterey, Santa Cruz)
 - N6ZX – Woodside (San Mateo County)
 - W6RAY – San Joaquin Valley (36 mi NE of Visalia)
 - KG6BAJ – Grass Valley (Nevada County, 50 mi NNE Sacramento)
 - N6RME – Diamond Springs (34 mi ENE of Sacramento)
 - More in the works ...
 - Also working on RF links to Bay area BBSs
 - Goal: cover the entire SCV section via RF only
 - Plan to start weekly SCV section check-ins soon



“You want it to go where?”

PACKET MESSAGE ADDRESSING REFRESHER AND UPDATES

Packet Message Addressing

- Within the Santa Clara County Network
- To AMPRnet users
- To Internet E-mail users
- To BBS Network users

XSC Network Addressing

- To send a message, you need two pieces of information:
 1. The recipient's FCC call sign or tactical call sign
 2. Which BBS they are using
- FCC Call Signs are straight forward
- How do I know which tactical call to use?

XSC Tactical Calls

- City/Agency primary tactical calls
 - Typically EOCs/DOCs
 - Posted as a permanent bulletin on all XSC BBSs
 - You should download and save in Outpost Archive folder
 - Includes primary tactical call & BBS assignments

#Tactical	Agency Name	Pfx	Pri	Sec
#-----	-----	---	-----	-----
XNDEOC	Xanadu, City of	XND	W4XSC	W2XSC

- City/Agency-specific tactical calls
 - Chosen by city/agency EC, submitted to packet net admin
 - Available to EC/AEC on the county website – log into the activities database ...

City/Agency-specific Tactical Call List

Santa Clara County ARES®/RACES
Welcome, Michael (N6MEF) (This isn't you? Then [log in...](#))

Home
[Log Out](#)
[Activities Home](#)
[SCC ARES/RACES Home](#)
[Comments/Bugs](#)

Events
[List Events By Date](#)
[List Events I Joined](#)
[Create a New Event](#)
[Modify an Event](#)
[Delete an Event](#)
[List/Print an Event Roster](#)
[Log Event Participation](#)

My Profile
[My Contact Info](#)
[My Equipment](#)
[My Activity Record](#)
[My Completion Certificates](#)
[My MAC Status](#)
[My MAC-Qualifying Events](#)
[Cities/Agencies I Support](#)
[Change My Call Sign](#)
[Change My Password](#)

My Team
[List Team Members](#)
[Download Team Roster](#)

EC / AEC Menu
[Roster Maintenance](#)
[Download Training History](#)
[List MACs by Qual Area](#)
[List MACs and MITs](#)
[Roster Verification Rpt.](#)
[Participation Rpt. for Agency](#)
[AlertSCC Change Notifications](#)
[Download AlertSCC Info](#)
[Tactical Call Lists for Packet](#)

Display Packet Tactical Call Signs
Contents of the tactical call sign file for County of Santa Clara:
Santa Clara County Tactical Call List
updated/revised: 29-Sep-2012 by Michael Fox, N6MEF

Santa Clara County EOC
Santa Clara County Communications Trailer
Plus the 10 "Tactical Calls for Ad Hoc Use"
#

Click here to [download this as a file](#).

Instructions for updating this file can be found on the [Packet Page](#) of the Santa Clara County ARES/RACES Website under the heading "Configuration and Setup Instructions - How to Request Tactical Calls".

- New Feature!
- Login to activities database
- EC/AEC: Click on “Tactical Call Lists for Packet”
- Click on “Download” if desired
- EC may want to send this list as a packet message to all city/agency users
- Then users can save it in their Outpost Archive folder

XSC Network Addressing

- How do I know which BBS?
 - Primary/Secondary BBSs are assigned by each city/agency
 - According to best radio coverage
 - According to number of users – to distribute the load
 - All users in each city/agency should use their primary BBS whenever possible
 - That way, everyone knows where to reach you
 - Same info is listed in primary tactical calls bulletin
 - Also listed by city on county website

#	Agency	Prefix	Primary BBS (2.1)	Secondary BBS (2.2)
Santa Clara County Cities and Agencies				
1	CAL FIRE VIPs - Santa Clara Unit	SCU	W2XSC	W1XSC
2	Campbell, City of	CBL	W1XSC	W3XSC
3

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

XSC Network Addressing

- Given the FCC or tactical call sign and the BBS ...
- Standard address format is:
 - callsign@bbSCALL.ampr.org
- Examples:
 - n6mef@w1xsc.ampr.org
 - xndeoc@w4xsc.ampr.org (fictitious City of Xanadu EOC)
- This format always works
 - No matter which BBS you are on
 - No matter which BBS the other person is on
- There are shortcuts for the adventurous ...

XSC Network Addressing

- Shortcuts & special handling
 - Send to a callsign on the same BBS that you are on
 - No “@...” needed
 - Example: KC6SKM and I are both on W1XSC
 - I can send to “KC6SKM” without the “@w1xsc.ampr.org”

XSC Network Addressing

- Shortcuts & special handling
 - Tactical calls
 - Agency using their primary BBS: you can use just the tactical call
 - By default, messages sent to a tactical calls without specifying the BBS are ALWAYS forwarded to the primary BBS for that agency according to the first three letters of the tactical call
 - Xanadu (XND) assigned to W4XSC
 - Anything addressed to xnd... will be forwarded to W4XSC
 - Send to: xndeoc
 - Message will ALWAYS go to: xndeoc@w4xsc.ampr.org
 - ... even if w4xsc is down!
 - Agency using secondary BBS: use full address
 - Xanadu assigned to W4XSC; W4XSC down; using W2XSC
 - Send to: xndeoc@w2xsc.ampr.org
 - This overrides the default forwarding rules

AMPRnet Addressing

- Similar to Internet e-mail
 - In fact, it uses the same protocol: SMTP
 - The only difference is that only amateur radio operators are allowed to be part of AMPRnet
- Domain name always ends in: ampr.org
 - Usually, the right-hand side is just callsign.ampr.org
 - Example: n6mef@w1xsc.ampr.org
 - Other possibilities you may see:
 - user@bbs1.aa6bbb.ampr.org
 - user@cityname.ampr.org
 - ...
- Works from/to any BBS in our county network

Internet E-mail Addressing

- user@domain
 - Example: user@gmail.com
 - Example: user@whitehouse.gov
 - Example: user@server.division.company.com
- Works FROM any BBS in our county network
- Internet E-mail TO our network is currently blocked
 - FCC Part 97 restricts who can originate transmissions on amateur frequencies
 - If we can add more e-mail gateways, we can work around that restriction

Hierarchical BBS Network Addressing

- `user@bbSCALL.#region.state.country.continent`
 - #region (format varies locally): #NCA = Northern California
 - State (two letters): CA = California
 - Country (three letters): USA = United States of America
 - Continent (four letters): NOAM = North America
 - Example: `n6mef@w1xsc.#nca.ca.usa.noam`
- Works from/to any BBS in our county network
- Our addresses:
 - `user@w1xsc.#nca.ca.usa.noam`
 - `user@w2xsc.#nca.ca.usa.noam`
 - `user@w3xsc.#nca.ca.usa.noam`
 - `user@w4xsc.#nca.ca.usa.noam`

So, What's My Address?

- You have TWO!
 - depending on which network the sender is using
- yourcall@bbSCALL.ampr.org
 - If the person sending to you is on AMPRnet
 - Example: n6mef@w1xsc.ampr.org
- yourcall@bbSCALL.#nca.ca.usa.noam
 - If the person sending to you is on the traditional BBS net
 - Example: n6mef@w1xsc.#nca.ca.usa.noam
- Note: Our BBSs understand both address styles. But many BBSs do not. So both parties will need to use the appropriate address for the network they are using.

Want to Know More About Addressing?

- New web page
- Contents:
 - Quick Reference
 - Network Types
 - Private Messages
 - NTS Traffic
 - Bulletins
 - Questions

Santa Clara County ARES/RACES

[Home](#)
[Operations](#)
[Packet](#)
[Training and Events](#)
[Reference Info.](#)
[FAQ](#)
December 3, 2012

Packet Network Addressing

[Quick Reference](#) |
 [Network Types](#) |
 [Private Messages](#) |
 [NTS Traffic](#) |
 [Bulletins](#) |
 [Questions](#)

Quick Reference

The following tables provide a quick reference for the various address formats that are supported by the Santa Clara County ARES/RACES BBS network. For more information about different network types, consult the details further down the page.

Sending TO an FCC Call Sign on any Santa Clara County BBS

Legend:

<i>usercall</i>	The FCC call sign of the recipient
<i>bbscall</i>	The FCC call sign of the BBS used by the recipient: W1XSC, W2XSC, W3XSC or W4XSC
W6XRL4	The fictitious call sign of Herman Munster, a character in a 1960's TV sitcom.

Format	Example	Notes
From: Any Santa Clara County BBS (W1XSC, W2XSC, W3XSC, W4XSC)		
<i>usercall</i> @ <i>bbscall</i> .ampr.org	w6xr14@w1xsc.ampr.org	The complete address is always best
<i>usercall</i> @ <i>bbscall</i> .ampr	w6xr14@w1xsc.ampr	Works equally as well as the complete address
<i>usercall</i> @ <i>bbscall</i>	w6xr14@w1xsc	Works equally as well as the complete address
From: The same BBS as the recipient		
<i>usercall</i>	w6xr14	With no "@...", message will stay on the same BBS
From: Any BBS on the Worldwide AMPRnet		
<i>usercall</i> @ <i>bbscall</i> .ampr.org	w6xr14@w1xsc.ampr.org	The complete address is always best. Partial addresses may work outside the county network, depending on how the remote BBS is configured.
From: Any BBS on the Worldwide BBS Network		
<i>usercall</i> @ <i>bbscall</i> .#nca.ca.usa.noam	w6xr14@w1xsc.#nca.ca.usa.noam	The complete address is always best. Partial addresses may work outside the county network, depending on how the remote BBS is configured.

Sending TO a Tactical Call Sign on any Santa Clara County BBS

Legend:

<i>tactical</i>	The tactical call sign of the recipient
XNDEOC	A fictitious tactical call sign for the fictitious City of Xanadu Emergency Operations Center
<i>primarybbs</i>	The call sign of the primary BBS assigned to the agency In these examples, the primary BBS for XND is W4XSC
<i>secondarybbs</i>	The call sign of the secondary BBS assigned to the agency In these examples, the secondary BBS for XND is W2XSC

For a list of BBS assignments, consult the [Packet Frequency and BBS Info](#) page

Keeping Up To Date on Packet

- Main Packet Page
- Pink Box lists updates
- Contents
 - Freqs & Network Info
 - Presentations
 - Config & Setup
 - Operating & Usage
 - Client Software
 - Weekly Nets
 - User Group & Tech Support

Santa Clara County OES, California
ARES/RACES

[Home](#) [Operations](#) [Packet](#) [Training and Events](#) [Reference Info](#) [FAQ](#) December 3, 2012

PACKET RADIO INFORMATION

[Freqs & Network Info](#) | [Presentations](#) | [Config & Set-Up](#) | [Operating & Usage](#) | [Client Software](#) | [Weekly Nets](#) | [User Group & Tech Support](#)

SANTA CLARA COUNTY PACKET NETWORK UPDATE NOTICES

[2012-10-03 - Call Sign Changes Completed \(PDF - 119 KB\)](#)

[2012-09-28 - Call Sign Changes Coming \(PDF - 106 KB\)](#)

[2011-11-28 - New Gateways \(PDF - 100 KB\)](#)

[2011-05-10 - New Features in SCCo Packet Installer v31 \(PDF - 105 KB\)](#)

[2011-03-09 - 2m Frequency Change at W6XSC-1 \(PDF - 91KB\)](#)

[2011-01-26 - Changes Completed \(PDF - 120 KB\)](#)

[2011-01-17 - New Features Coming \(PDF - 136 KB\)](#)

[2010-09-11 - New Features Available \(PDF - 101 KB\)](#)

[2010-08-30 - New Features Coming \(PDF - 127 KB\)](#)

[2010-06-07 - New Features \(PDF - 82 KB\)](#)

[2010-05-31 - Upcoming Changes \(PDF - 85 KB\)](#)

[2010-05-17 - 220 Frequency Change at W6XSC-1 \(PDF - 62 KB\)](#)

[2010-05-10 - Upcoming Changes \(PDF - 82 KB\)](#)

[2010-01-29 - Network Status Update \(PDF - 18 KB\)](#)

[2010-01-19 - Update Your Outpost Configurations Now \(PDF - 87 KB\)](#)

[2010-01-11 - Access Change Details to the SCCo Packet Network \(PDF - 80 KB\)](#)



[2010-01-04 - Upcoming Changes to the SCCo Packet Network \(PDF - 69 KB\)](#)

[2009-12-18 - Outpost Upgrade Notice \(PDF - 61 KB\)](#)

Frequencies and Network Info

[Packet Frequency and BBS Listings](#)

[Packet Network Addressing](#)

Packet Site Registration Form  (126 KB)  (54 KB) - Record site details for RF coverage analysis

Presentations

[Packet & CERT](#) (PDF - 7.9MB) What is Packet?, Why Packet?, Outpost & PacFORMS Overview, Cupertino CERT & Packet, Mountain View CERT & Packet, Santa Clara County EOC high volume packet operations. Presented to San Mateo County CERT & Amateur Radio operators on 10/25/2012 by Michael Fox, N6MEF and Jim Oberhofer, KN6PE

[2011 Year End Summary](#) (PDF - 1.7MB) End of Year Summary of Changes and Key Concepts, 12/08/11, by Michael Fox, N6MEF

[Amateur Packet Radio](#) (PDF - 2.4MB) Presentation to Amateur Radio Club of Alameda, 03/25/11, by Michael Fox, N6MEF

[What's Packet?](#) (PDF - 2.5 MB) Presentation to Cal-Fire, 02/19/11, by Logan Zintmaster, KZ6O

[Packet Update - What's New - SCCo21](#) (PDF - 708 KB) Presentation on Training Net - 02/08/11, by Jim



Net Control End of Year Update - 2012



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New Net Control Class Structure

- Now three classes in the series
- More exercises
- Third class: much more info on net control planning
 - Net types / quantity
 - Frequency selection
 - Interference
 - Fundamental overload
 - Intermodulation distortion
 - Power level selection
 - Antenna placement
 - Scheduling
 - Documentation
- Too much for an update class; consult online materials

Relief Briefings



- Assignment, activation number
- Served agency, person in charge, how recognized
- Frequencies, tactical calls, locations, contact numbers
- Who to contact regularly
- Radio, power supply, antenna information
- Nearest telephone: location and number, how to dial out
- Location of toilet, water, food, first aid, and other supplies
- Summary of previous operational period
- Current status of: people, resources, incident
- Pending issues for next operational period
- Introduce replacement to rest of team

Reference: "Santa Clara County ARES/RACES Performance Standards and Best Practices"

Local Net Transfer/Handing-off



- For local hand-off, single operator
 - Relief operator can work as scribe briefly just prior to hand-off
- For local hand-off, net control & scribe team
 - Replacement arrives early, familiarizes self with location
 - Replacement receives briefing from shift supervisor
 - Net Control runs net solo while scribe briefs replacement with details
 - Scribe catches up on anything missed
 - Net Control announces shift change, stand by for 30 seconds
 - Scribe slides into net control seat; replacement slides into scribe seat
 - Announce that net is resumed

Remote Net Transfer/Hand-off

- You may need to transfer a net to a remote net control
 - Initial resource net control transfer to EOC or event location
 - Hand off to a more experienced net control operator
 - Evacuation of net control location
- Information to transfer
 - Current status of all who are checked into net
 - Resource Net transfer involves current en route status information
 - Any other instructions as may be necessary; see relief briefing list
- Key points
 - Priority One: Maximize accuracy; losing track of even a single person is not an option!
 - Priority Two: Minimize transfer time
 - Always use good communications techniques: 5 words at a time; proper pro-words; pause before speaking; eliminate need for repeats

Procedure for Transfer of Net

NC1 = Current Net Control

NC2 = Replacement Net Control

Who	What
NC2	Announces presence; ready for net control transfer
NC1	Acknowledge; announce start of H&W; requests NC2 to acknowledge each response with a tactical call such as “net2” (or similar)
NC1	Calls each person, one at a time, <u>phonetically</u>
Individuals	Respond with street location, odometer, call sign
NC2	“net2 copies”; or “say again ...”
NC1	Acknowledges; repeats process for rest of people on net
NC1	Fills in NC2 on any other pending issues; asks if ready to take net
NC2	Acknowledges all info; confirms ready
NC1	Announces transfer of net
NC2	Announces self as net control

Exercise: Transfer of Resource Net

Who	What
NC2	"Net control, this is <NC2 call sign>, ready for net control transfer"
NC1	"<NC2 call sign> roger; Break; I will now conduct a H&W check; when I call you, respond with street location, odometer and your call sign; <NC2 call sign> I want you to acknowledge each response as tactical call 'net2'"
NC2	"Roger"
NC1	"<call sign 1>" (<u>phonetically</u>), "health and welfare"
<call sign 1>	Responds with street location, odometer, call sign
NC2	"Net2 copies"
NC1	"Acknowledged. <call sign 2>" (<u>phonetically</u>)
<call sign 2>	Respond with street location, odometer, call sign
NC2	"Say again odometer"
<call sign 2>	Respond with odometer
NC2	"Net2 copies"
NC1	"Health and welfare check complete"

Continued on next page ...

Exercise: Transfer of Resource Net

Continued from previous page ...

Who	What
NC1	"Net2, did you need any other fills?"
NC2	"Negative"
NC1	"O.K. Additional information follows: You need to contact Jenny at 867-5309 to unlink the repeaters after you close the net."
NC2	"Acknowledged"
NC1	"Are you ready to take the net?"
NC2	"Affirmative"
NC1	"This is <NC1 call sign> transferring net control to <NC2 call sign>; <NC1 call sign> clear"
NC2	"This is <NC2 call sign>, net control for the Santa Clara County Resource Net. This is a directed net..."





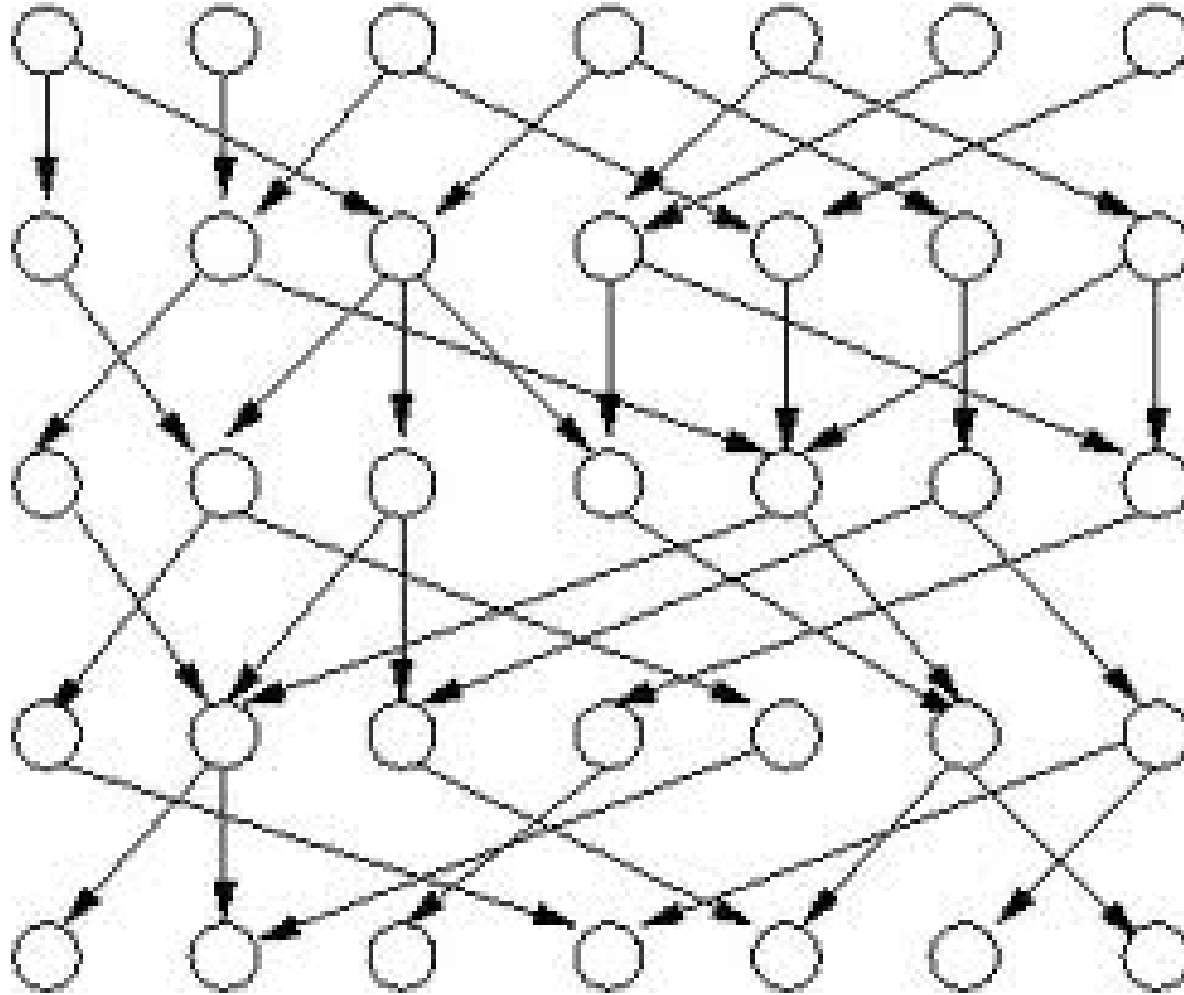
AlertSCC Notification - RACES

- **AlertSCC Santa Clara County** – This site is for notification that you will receive from Santa Clara County Office of Emergency Services to residents of Cities within Santa Clara County.
- **AlertSCC Santa Clara County RACES** - If you want to be notified by Santa Clara County RACES Staff in the event of an activation or pending activation then you need to ensure your AlertSCC information is current and complete. See the next slide for what you need to do.

AlertSCC Notification - RACES

- If you want to be notified of any RACES activations you need to update your AlertSCC information.
- Log in to the RACES database at:
<https://www.scc-ares-races.org/activities/login00.php>
- Go to “My Profile” => “My Contact Info”
- Under “AlertSCC Information” you can update your contact number(s), email(s), or SMS number.
- Important Note: for us to use AlertSCC, Phone #1 cannot be blank. If it is blank, the other information is ignored.

Message Passing



Always keep in mind:

“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.”

Message Passing Observations

- Message passing is what we do. It's why we exist.
- But message passing skills seem to have degraded
 - Incomplete / incorrect message forms
 - Degraded message passing protocol skills
 - Pace seems to be slowing down
- New message passing classes in 2013
 - Will focus solely on message passing
 - Plenty of table top exercises to demonstrate proper skills
 - Moved around to different locations within the County.

Message Passing Do's & Don'ts

Based on observed behavior at recent drills:

- Do not repeat the message
- Do not use Q-codes
- Do not confuse or mix phonetics
- Do say numbers correctly: 11 is “one one”
- Do say time, date correctly: 10:51 is “one zero five one”
- Do minimize words; use proper prowords:
 - “the date is ...” → “date ...”
 - “Sorry, I didn't get that. Can you ...” → “say again word after”
- Do record message #s correctly
- Do send your message # when done receiving
- Do get acks from all stations in multi-station msg
- Do practice copying call signs (quickly)
- Do practice phonetics (standard ITU)



Control Phrases

Phrases that NCOs can use to “get their point across” to those stations that they setting the ground work for communicating with.

- “All stations standby” or “All stations hold your traffic”
- “Pass messages in five word groups”
- “Use standard ITU phonetics when spelling”
- Others???

Prowords and Introductory Prowords

PROWORDS, OPERATIONAL WORDS

These words are spoken to begin or end the message, indicate information for the receiving operator, or to separate parts of the message or books. They are not written in the message or counted in the check. **Examples:** “NUMBER”, “END”, “BREAK”, “I SPELL”, “I SAY AGAIN”, “OVER”, “ROGER” ...

INTRODUCTORY PROWORDS

Introductory words are spoken to alert the receiving operator to a special type of group to follow such as initial(s), figure(s), mixed groups, or amateur call signs... not normal spoken words. The introducer implies that the group is going to be sent one character at a time, letters phonetically if present. **Examples:** “FIGURES”, “TELEPHONE FIGURES”, “INITIAL”, “INITIALS”, “MIXED GROUP” ...

Message Handling Prowords

- I SPELL –
 - Used to indicate you are going back to spell the group just voiced. It is used with ONE GROUP AT A TIME, and is said IMMEDIATELY after voicing the group, followed by either phonetic or letter spelling of the group.
- I SAY AGAIN – to repeat for clarity
 - Say the group(s), then "I say again", repeat the group(s), and then continue. It is wise to limit repeats for clarity to one group at a time to avoid confusion. In bad radio conditions, however, repeating phrases or whole lines of a message can increase the chance for correct copy.
- SAY AGAIN ... – to request a repeat
 - Used by the receiver to request a repeat. Followed by a qualifier. Example: SAY AGAIN WORD AFTER ...

Message Handling Prowords

- WORD AFTER “Say again word after...”
 - Respond with group or part requested
- WORD BEFORE “Say again word before...”
 - Respond with group or part requested;
- BETWEEN “Say again between... and...”
 - Respond with group(s) between blanks, observing limits
- ALL AFTER “Say again all after...”
 - Respond with all groups after the one specified to the end of the message, unless limited
- ALL BEFORE “Say again all before...”
 - Respond with all groups in the message to the group specified, unless limited

Rules of Thumb

- PAUSES

- Pauses are crucially important tools in voicing messages. Pauses exist between words/letters, groups (essential for clarity and separation)
- Additionally, pauses may be used to listen for interruptions throughout the message transmission to improve efficiency.
- The receiving operator hears such pauses. They are clues to what is coming next in addition to aiding in correct group copying.

- SPELLING

- Spell with letters or phonetics based on radio conditions, interference, or type of group. Spell and use phonetics where mandatory. Use only standard phonetics. The objective in traffic handling is absolute accuracy in copy.
- ALWAYS use standard ITU phonetics

Rules of Thumb

- PUNCTUATION (per ARRL NTS practice)
 - PUNCTUATION characters are not used in the text except as follows:
 - /: The slash, "/", is used to separate characters within a group, as in 304/BA. Since the "/" is part of the group. Although usually not used as a group by itself (a space on the left and on the right).
 - X: The letter "X" used to denote a period. The letter "X" is never used as the last group of the text. The "X" is a separate group and IS counted for the check.
- PUNCTUATION (per SCC RACES practice)
 - Written - "." will continue to be used at the end of a sentence, not a separate word group.
Spoken – "." will be said as "period"
 - Written – "?" will continue to be used at the end of a sentence, not a separate word group.
Spoken – "?" will be said as "question mark"

Introductory Prowords

Introductory words are spoken to alert the receiving operator to a special type of group to follow such as initial(s), figure(s), mixed groups, or amateur call signs... not normal spoken words.

- Figure(s)
- Phone figures
- Initial(s)
- Amateur call
- Mixed group(s)
- Mixed group figure(s)
- Email address
- Packet address

Proword: Figures(s)

- Identities one or more numbers to follow
- Examples:
 - Written: Send 1 jelly donut right away
 - Spoken: “Send figure ONE jelly donut right away”
 - Written: Switch to frequency 146.115
 - Spoken: “Switch to frequency figures ONE FOUR SIX decimal ONE ONE FIVE”

Proword: Phone Figures

- Identifies a telephone number to follow
- Best to include area code for clarity
- Examples:
 - Written: 408-555-1212
 - Spoken: “phone figures FOUR ZERO EIGHT <pause> FIVE FIVE FIVE <pause> ONE TWO ONE TWO
 - Written: (408) 867-5309
 - Spoken: “phone figures FOUR ZERO EIGHT <pause> EIGHT SIX SEVEN <pause> FIVE THREE ZERO NINER”

Proword: Initial(s)

- Identifies one or more initials to follow
- Examples:
 - Written: James T Kirk
 - Spoken: “James <pause> initial T <pause> Kirk”

 - Written: ARRL
 - Spoken: “initials ALPHA ROMEO ROMEO LIMA”

Exercise – How would you say these?

- 9 lives
- \$64,000 question
- 440.700 MHz
- 4:15 PM
- 107 HOOK ROAD SW APT 21
- PHILADELPHIA PA 19034-1234
- $37^{\circ} 22' 13.97''$ N by $122^{\circ} 02' 24.56''$ W

Proword: Amateur Call

- Identifies an amateur call sign to follow
- Example:
 - Written: K6PMM
 - Spoken: “amateur call KILO SIX PAPA MIKE MIKE”

Prowords: Mixed Group(s)

- Indicates a group of letters and numbers to follow, beginning with a letter
- Includes amateur calls with “/...”
- Examples:
 - Written: Ford F150
 - Spoken: “Ford <pause> mixed group FOXTROT ONE FIVE ZERO”
 - Written: W4KFC/VA
 - Spoken: “mixed group WISKEY FOUR KILO FOXTROT CHARLIE slash VICTOR ALPHA”

Prowords: Mixed Group Figure(s)

- Indicates a group of numbers and letters to follow, beginning with one or more numbers
- Examples:
 - Written: 2C
 - Spoken: “mixed group figure TWO CHARLIE”

 - Written: 2/C
 - Spoken: “mixed group figure TWO slash CHARLIE”

 - Written: 14R5
 - Spoken: “mixed group figures ONE FOUR ROMEO FIVE”

Exercise



Exercise – How would you say these?

- KE6AGJ
- WD-40
- iPhone 4s
- 55 W Younger Ave 4th FLR
- 107A E 1st ST Apt 3C

Proword: Email address

- Indicates an e-mail address to follow
- Example:
 - Written: harry@aol.com
 - Spoken:
 - “...email address... HARRY <pause> ATSIGN <pause> AOL <pause> DOT <pause> COM”
 - OR
 - “...email address <pause> HOTEL ALPHA ROMEO ROMEO YANKEE <pause> ATSIGN I spell A T S I G N <pause> ALPHA OSCAR LIMA <pause> DOT I spell D O T <pause> CHARLIE OSCAR MIKE”

Proword: Packet Address

- Indicates a packet address to follow
 - `callsign@bbscall.<region>.<state>.<country>.<continent>`
 - Some parts may be left off (right to left)
 - (Not currently available on SCCo BBSs, but coming ...)
- Example:
 - Written: `n6mef@n0ary.#nca.ca.usa.noam`
 - Spoken: “packet address NOVEMBER SIX MIKE ECHO
FOXTROT atsign NOVEMBER ZERO ALPHA ROMEO YANKEE
dot poundsign NOVEMBER CHARLIE ALPHA dot CHARLIE
ALPHA dot UNIFORM SIERRA ALPHA dot NOVEMBER OSCAR
ALPHA MIKE”

Exercise



Exercise – How would you say these?

- pat.moore@ci.gilroy.ca.us
- n6mef@w6xsc-1.ampr.org
- kj3e@kehki.#somd.md

Message Forms - formal

Message Form – Message Numbers

- Critically important for tracking messages
- Message #
 - YOUR message number (often pre-stamped to ensure uniqueness)
- When Receiving Msg.: Sender’s Message #
 - If you are receiving a message, put the sender’s message number here
- When Sending Msg.: 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 ² Msg.: Sender’s msg. #	Msg. #	When Sending Msg. ³ Receiver’s msg. #
	[Empty Box]		[Empty Box]
[Empty Box]	[Empty Box]	[Empty Box]	[Empty Box]

Recommended Transmission Process

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

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. #
Date: (MM/DD/YY) ¹ ____/____/____	Situation Severity (✓ one) ⁴ <input type="checkbox"/> EMERGENCY (e.g., Life Threat) <input type="checkbox"/> URGENT (e.g., Property Threat) <input type="checkbox"/> OTHER (All others)	Msg. Handling Order (✓ one) ⁵ <input type="checkbox"/> IMMEDIATE (As Soon as Possible) <input type="checkbox"/> PRIORITY (Less Than One Hour) <input type="checkbox"/> ROUTINE (More Than One Hour)		Message Requests You To: ⁶ TAKE ACTION (✓ one) <input type="checkbox"/> Yes <input type="checkbox"/> No REPLY (✓ one) <input type="checkbox"/> Yes, by _____ <input type="checkbox"/> No <input type="checkbox"/> FOR YOUR INFO. (no action required)
Time: (24 hour clock) ____:____:____	To: ICS Position: (required) ⁷ Location: (required) ⁹ Name: (optional) Telephone #: (optional)		From: ICS Position: (required) ⁸ Location: (required) ⁹ Name: (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: <input type="checkbox"/> Management <input type="checkbox"/> Operations <input type="checkbox"/> Planning <input type="checkbox"/> Logistics <input type="checkbox"/> Finance				
Operator Use Only:¹⁴				
How Received <input type="checkbox"/> or Sent <input type="checkbox"/> (✓ one)		Operator Call Sign:		
<input type="checkbox"/> Telephone <input type="checkbox"/> Dispatch Center		Operator Name:		
<input type="checkbox"/> EOC Radio <input type="checkbox"/> FAX <input type="checkbox"/> Courier				
<input type="checkbox"/> Amateur Radio <input type="checkbox"/> 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: After receiving, 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 6/28/2007				

Sending to More Than One Station

- Announce quantity and priority of 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 and sends their message number at the end
- 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

Message Forms - informal

Critical components to capture....

Informal messages could be received verbally, or on any manner of writing material. From neatly written to total scribble and cryptic notes...

It's most important to capture the following key elements. At a minimum you might get:

- Who to / Who from / message details

Make sure you add the following:

- Date / Time / contact number/method

Example of an informal message

Received verbally by me:

To the Verizon Rep. at SCC EOC

From Dale Foster – OPS Section Chief

For the THIRD TIME, where are my cows? I WANT an answer in 5 minutes!

I added the date / time / and method:

4-9-2010 / 1055 hours / EOC to EOC radio

Unfamiliar Form – what do you do?

Define a process with – what works for you and you think would get you message across.

- For Example: A Donut Ordering form
 - how does the recipient know what part of what you're saying is the name of a field, vs. what part is data that you are transmitting?
 - For example, one might say: I will say the word "field" followed by the field name, then the word "value" followed by the info in the field (or "field name" and "field value")
 - For a form to be used more than once, I might assign numbers and then use that. For example: I will first tell you the field numbers and names. I will say field number, followed by the number, then "field name" followed by the name
Once we have the numbers, I'll send the message as "field 1" <pause> "<value>"

Unfamiliar Form – what do you do?

- Always check to be see if the receiving party has a copy of the form you are thinking of sending.
 - If they do, it simplifies your sending process
 - If not follow the process defined previously in donut ordering form
- If they have a copy of the unfamiliar or non-standard form and it has numbered fields...
 - Send it using the numbered fields – saves time
 - ONLY send the fields that have a value

Example of an unfamiliar form: Donut Ordering Form

Date: 01-07-11

Time: 1050 hrs.

Person Ordering: John Henry

Glazed: 1 doz

Jelly: 1

Plain: 24

Bear Claws: 1/2 doz.

Message Passing – problem solving

If an Operator is sending a message poorly (say a ICS213) – what do you do?

- You can suggest a process of, “left to right, top to bottom, 5-words at a time”
- If that doesn’t work, then you switch to a more directive approach by asking for individual fields: message number?, date?, time? To position?, etc.
- If, after going through that once, the next message isn’t done properly, time to request that they be replaced.

If an Operator is sending a message poorly (using an unfamiliar form you haven't seen) – what do you do?

- Try suggesting: “First, tell me the names of each of the fields on the form, left to right, top to bottom. Pause after each one (or five) and wait for an acknowledgement by me. If the fields are numbered, tell me the number when you tell me the field name”
- Then ask for each piece of info by the field name.

Rule of thumb (SCC RACES)

- At the end of each five words, say "Over".
- If a line ends with less than five characters, say "Over".
- To tell the sender to proceed, say "Go".
- To start a new line, say "New line". (e.g., message has columns in it or paragraphs)
- At the end of the message, say "End of message", and, if applicable, "Exercise traffic".
- Hearing "end of message", receiver says "I copy your message number ____, My message number _____. This is (FCC call sign). Out"
- Sender says, This is (FCC call sign), Out"

Amateur Radio Staffing and Policies for Red Cross or other NGOs

Red Cross and NGO Policy

Amateur Radio Staffing and Policies for Red Cross or other NGOs
Santa Clara County ARES/RACES
Scott Morse KC6SKM
November 2012

The Silicon Valley Red Cross is a served agency in Santa Clara County. They may, like any other city or agency, request mutual aid assistance from Santa Clara County ARES/RACES.

If the request is for operators at the Red Cross headquarters HAMS, if available, will be dispatched and will operated as directed by Red Cross personnel on site using the equipment at the Red Cross.

Red Cross and NGO Policy – continued

If the request is to staff an ERV or other vehicle the HAMs would likely have to supply all their own equipment and operate as directed by the Red Cross personnel in charge.

When the assignment is for a shelter and that shelter is located within a city, then that city will be contacted by Santa Clara County ARES/RACES to determine if a HAM is available for the assignment. If one is available they will be dispatched to that location if not then mutual aid will be used. In all cases communications will be directed by the person in charge of the shelter, the shelter manager.

Red Cross and NGO Policy – continued

If the Shelter is set up and operated by the city or other NGO then that HAM will direct their communications as instructed by the city or NGO. If the shelter is set up by or operated by the Red Cross personnel then the first choice would be to have two HAMs there one to talk to the local city and one to talk to the Red Cross EOC. The shelter manager will be the one to direct communication and release information.

Red Cross and NGO Policy – continued

If there are not enough HAMs available to place two at the shelter then the next best would be one HAM with two radios one to monitor and talk to the city and one to monitor and talk to the Red Cross. One packet station can handle all packet traffic because messages will route as addressed. The least acceptable would be one HAM with one radio and a schedule to monitor one of the frequencies and then to check in on the other at specific intervals.

Red Cross and NGO Policy – continued

No matter who is operating the shelter communications with both the local jurisdiction as well as Red Cross, other NGOs etc. will be necessary. The city will be the ones to take care of security and other issues and will want to know things like capacities and occupancies so they can make their plans. The Red Cross will want information and will supply some of the logistical items, food, cots, etc. The HAMs assigned will need to be flexible and able to provide the communications needed by all parties.

Red Cross and NGO Policy – continued

There may be cases where a HAM was directed to send a message to one party and a request for the same information comes in from another, that request should be directed to the shelter manager before it is released. The job of the HAM in a shelter is to provide communication path(s) and only to pass the specific information that they are instructed to pass and then only to those they specifically directed to send it to.

Red Cross and NGO Policy – continued

Just like any assignment no information is released to anyone without specific approval from those in charge. At no time should any personal information be transmitted by voice.

**STANDARD OPERATING PROCEDURES
SANTA CLARA COUNTY ARES/RACES
RESOURCE NET**

STANDARD OPERATING PROCEDURES

SANTA CLARA COUNTY ARES/RACES RESOURCE NET

Prepared by Santa Clara County RACES Revised May 2012

BACKGROUND: The Resource Net serves several purposes. Therefore, three levels of activation have been selected to cover these purposes.

LEVEL 1 - INFORMATION GATHERING (INITIAL DAMAGE REPORTS)

The mission of the Resource Net (RN) at Level 1 is to gather a snapshot of conditions and provide it to County and city EOCs and other amateur radio operators. The first person who comes up on the RN repeater should consider announcing a directed net and being net control. However, if he or she is uncomfortable with the task, they should simply announce that they are

on frequency, announce what they have heard, and ask if someone else on frequency would be willing to assume net control. The Resource Net Control Operator (NCO) can be a person not physically at the EOC during the early stages of an event, and need not be a member of the county ARES/RACES staff.

County ARES/RACES staff will check in on this net as soon as possible, help coordinate activation of this net, and aid in assignment of an NCO. Santa Clara County (SCCo) RACES persons should advise the RN NCO when the SCCo OES radio room is operational, and advise what frequencies are being used for the Message Net, the Command Net, and the Packet Net. The Net Control Operator script for initiation of the Resource Net can be found below as Appendix 1.

STANDARD OPERATING PROCEDURES

SANTA CLARA COUNTY ARES/RACES RESOURCE NET

LEVEL 2 - REFERRAL TO CITY TACTICAL NETS

The Resource Net is raised to Level 2 whenever a city Emergency Coordinator (EC) asks that ARES operators from his/her city contact the EC on the city frequency. The Level 2 Resource Net Control Operator tasks include information gathering and referral of operators to city frequencies during the initial response activity. The city frequencies can be found as Attachment 1B. The NCO will give the city tactical frequency shown on the attachment unless contacted by either the city EC or county staff with updated information.

City ECs should advise the Resource Net NCO when their city tactical net is in operation and which frequency is being used for their city tactical net. The Net Control Operator Script for Referral to City Tactical Nets can be found below as Appendix 2.

STANDARD OPERATING PROCEDURES

SANTA CLARA COUNTY ARES/RACES RESOURCE NET

LEVEL 3 - COORDINATION OF MUTUAL AID

As an event progresses, there may be a call for mutual aid from affected cities. If this occurs, the cities asking for assistance are to be referred to the County Message Net to notify Santa Clara County (SCCo) RACES staff of this request; the Resource NCO must not take responsibility for this notification.

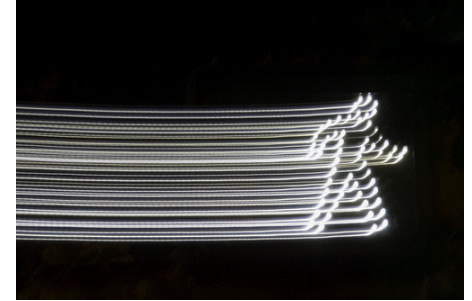
The level 3 Resource Net NCO will receive check-ins from SCCo OES-badged Mutual Aid Communicators (MACs) who already have permission from their respective ECs to volunteer for a mutual aid assignment. The Level 3 NCO must ask the person volunteering to confirm that -2- they have been released by their EC and then have that person stand by on the Resource Net for assignment. As directed by the SCCo Chief Radio Officer (CRO), the NCO calls the MAC, gives the activation number and makes the assignment.

Critical information to be given at that time are: 1) nature of the assignment, 2) time and place to report, 3) travel frequency, and 4) instructions to keep the NCO informed of departure from home, arrival at assignment, departure from assignment and arrival at home. Net control must keep careful logs of all communications with prospective and assigned MACs. The Net Control Operator Script for MAC activation and assignment can be found below as Appendix 3.

Activation Process - Review



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
 - e.g. SCC-09-06; MTV-09-01T
- Write it down!
 - Consider it your confirmation number that you were properly activated under DSW rules
- **MUST** be released by your City Emergency Manager

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/operations.html>

