Cupertino October Drill

3 October 2013
Jim Oberhofer KN6PE

Topics

1. About us
2. A Cupertino Earthquake event
3. The CARES response
4. Drill Details

CARES mission

The mission of Cupertino ARES is to maintain and train Amateur Radio volunteers capable of providing professional emergency communications, increasing the City's emergency response effectiveness, and speeding the recovery effort.

The City’s response priorities

- Address immediate life safety problems
- Assess the integrity of and stabilize Cupertino’s critical infrastructure
  - Water
  - Sanitary
  - Access
- Perform search and rescue, health and welfare, establish shelters
- Execute recovery operations

Earthquake Scenario

Objective: mitigate further damage to infrastructure and property; preserve life; restore services

	What the EOC needs	CARES	CERT	MRC
Notification		Self-evident	Self-evident	Self-evident
What do you do first	• Preliminary Safety Assessment	• Take care of family at home	• Take care of family at home	• Take care of family at home
Activation / Mobilization	• Help with the initial EOC staffing	• Activate the CARES emergency net • Check into the net • Preliminary Safety Assessment • Retrieve the Van	• Respond to organized neighborhood • Neighborhood PSA • Respond to local ARK	• Respond to local ARK
Deployment (Help stabilize the situation)	• Information on the state of the city • Windshield survey • Rescue assistance to residents • Medical assistance to residents • Help with logistics, distribution of food, shelter, material • Help reassure residents	• Comm Van is staffed • Deploy Field Responders (Arks, Fire Stations, Shelter, Medical, etc) • Infrastructure Safety Assessment • Provide served agency support (per plans) • Build staffing plan	• Activate ARK • Establish, staff ICS • Check in volunteers • Receive process community assistance requests • Assemble, dispatch SAR, First Aid teams • Build staffing plan • Deploy remote ICPs as necessary	• Establish First Aid Station at ARK • Deploy as requested • Build staffing plan

Earthquake Scenario

Objective: mitigate further damage to infrastructure and property; preserve life; restore services

	What the EOC needs	CARES	CERT	MRC
Recovery	• Field Status Reports	• Operational period reports	• Operational period reports	•Operational period reports
Demobilization	• List of supplies to be replenished	• Personal Equipment inventory • CARES asset inventory	• Personal Equipment inventory • Ark asset, supplies inventory	• Personal Equipment inventory • Ark First Aid asset, supplies inventory

CARES Objectives

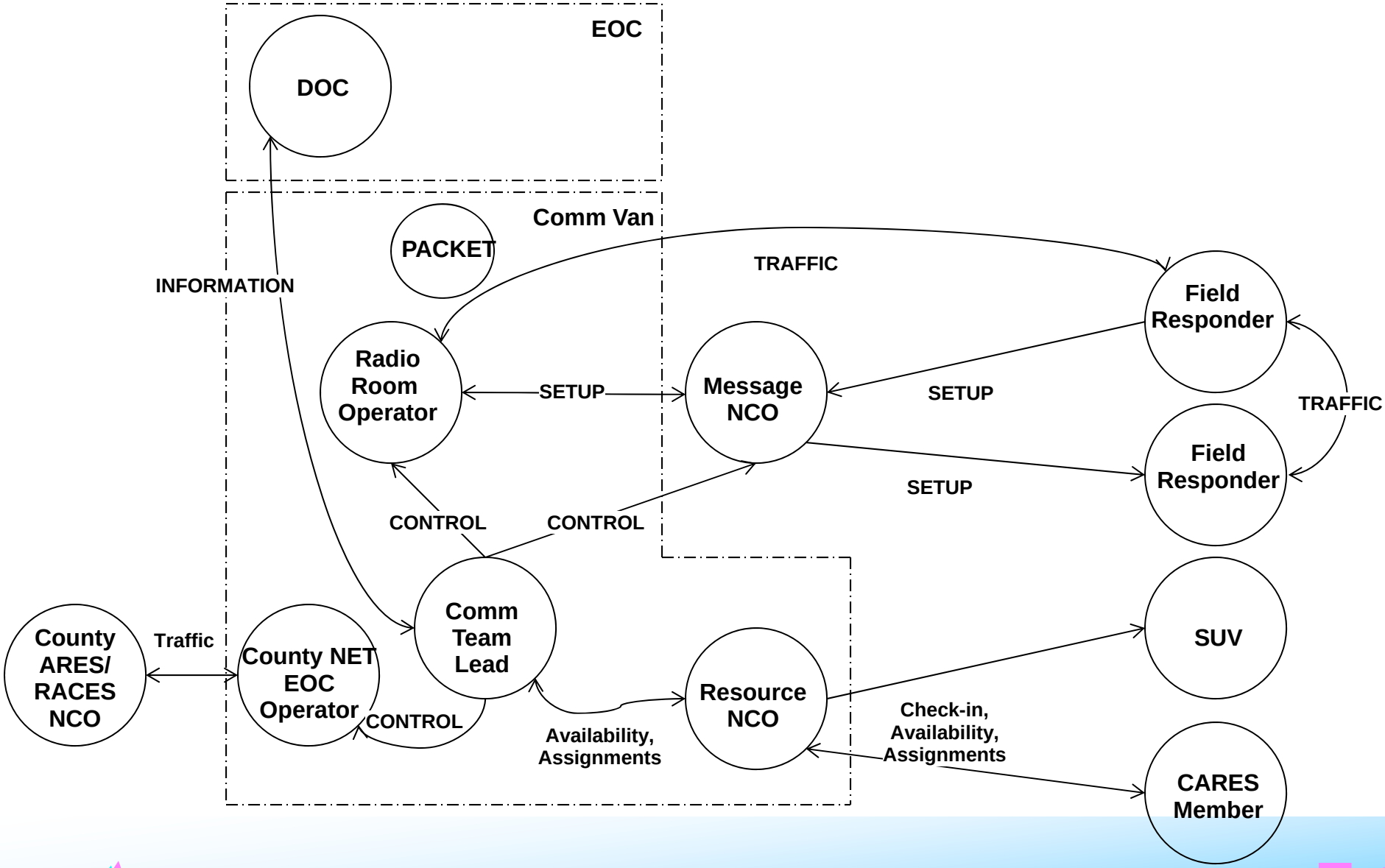
- EOC Communications support
- ARK Communications support
- Field support based on resource requests

Scenario Overview

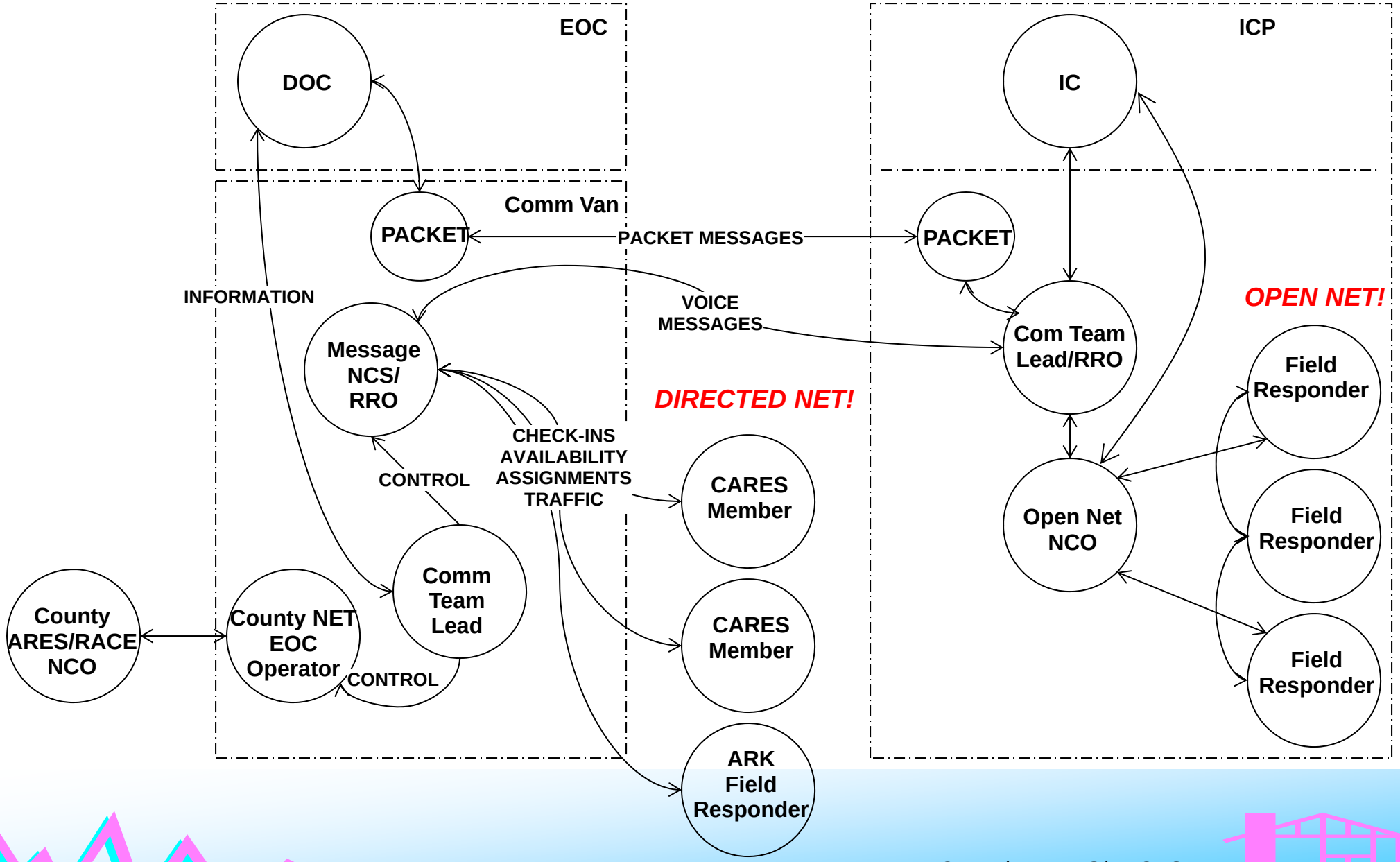
07:30	Drill Begins, Earthquake event occurs, Hayward Fault, 7.3 magnitude. Objects fall off shelves in Cupertino.
	>>> CARES activates the Emergency Net, TAC-1
	>>> We will skip will skip the PSA step; get ready for Field Deployment
	>>> CARES retrieves the Comm Van, moves it to the EOC.

08:00	Aftershock occurs, Sargent-Berrocal Fault, 4.9 magnitude.
	ARKs start to open up >>> CARES members start arriving at the ARKs, check in on the Message Net.
	EOC receives a Public Works report of a landslide, trapped and injured residents in the vicinity of Linda Vista Drive.
	EOC receives ARK reports, minimal damage. EOC requests CARES, CERT, MRC to respond and assist with Search and Rescue (SAR); set up an Incident Command Post (ICP).
	ARKS are directed to stand down except for one. DOC requests all CCC responders to proceed to the ICP to assist with SAR.
	ICP is setup, SAR teams are deployed. There are casualties. >>> CARES on the air supporting the SAR teams.
~16:00	Drill secures; begin debrief.

How we typically operate



Handling a mixed deployment



Net Operations

Resource Net Specifics

- Check into the Resource net (TAC-1, 147.570)
- State your availability
- If scheduled for a later shift, check out and come back 30 minutes prior to your shift.
- When given an assignment, STAY on the RESOURCE Net until you arrive at your assignment. And then…
  - Check out of the Resource Net
  - Check into the Message Net (TAC-2… 146.460)
- When done with your assignment…
  - Check out of the Message Net
  - Check into the Resource Net (TAC-1, 147.570)
- Stay on the Resource Net until you return home, then check out of the Resource Net.

Net Operations

Definitions

Directed Net

1. Established when the amount of traffic to be handled cannot be accomplished on a first come-first served basis.
2. NCS determines who will use the frequency at a given time.
3. NCS acknowledges those stations first that may have incident related traffic in priority order.
4. Conversations between stations are kept at a minimum.
5. Tactical call signs are assigned to support efficient traffic handling.
6. This net is considered formal in nature, and stations having non-incident related traffic may be asked to stand by or move to another frequency.

CARES operates the Message Net as a Directed Net

Net Operations

Definitions

Open Net

1. The incident has little incident-related traffic, or there is little need to direct individual stations with a Net Control Station.
2. An Net Control Station (NCS) may or may not be required.
3. Stations do not need to contact the NCS before making a directed call to another station.
4. Incident-related traffic may be handled on a point-to-point basis.
5. Most any type of traffic and communications is permitted.
6. Conversations are permitted on the frequency, provided that they break every so often to allow incident-related traffic to pass.

CARES operates the ICP Net as an OPEN Net

Field Communications Tasks

ARKs

Field Responder: Works with the ARK Incident Commander (IC); **pass voice and packet messages** between the ARK and the EOC. Handles inquiries, pass requests, submit reports.

Incident Command Post (ICP)

Comm Team Lead: Supervises the assigned communications responders; Works with the Local IC; provides information exchange between the ICP and the EOC on a Directed Net.

Net Control Operator: Keeps track of resources in the field. Performs periodic Health & Welfare checks. Establishes and ensures the effectiveness of the Open net.

Field Responder: Works with a SAR Team; **pass voice messages** between the Field SAR teams and the EOC. Handle inquiries, pass requests, submit reports. Operates in an Open Net.

Comm Van / EOC

Comm Team Lead: Supervises the assigned communications responders; Works with the Department Operations Center (DOC); manages and assigns resources based on requests for communications support.

Net Control Operators: Keeps track of resources in the field. Performs periodic Health & Welfare checks of deployed responders.

Radio Room Operator: **Pass messages** between the EOC and deployed responders.

Message Handling

Three types of messages

1. Passing traffic on behalf of a served agency

- Pass the message from the served agency exactly as written.
- *However*, if it is not clear to you, it may not be clear to the EOC. Ok to coach the originator and suggest clarity. But, it ultimately must be the originator's message.

2. Self-originated messages

- These messages may not be written and a written response may not be required. In this case, you control what the message text will be. Write it down anyway.

3. Administrative messages

- These messages are questions between you and the Net Control Operator or Shift Supervisor, such as requesting a relief, or information on the next shift, or other issues of your safety.

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Message Handling

Self-originated messages

- ***Informally originated* --** These are messages based on your observations, or information or inquiries you receive that you believe should be passed on for action.

Example: Resident inquiring into the status of a clinic
A person reporting a gas leak
A report of flooding

- ***Situation Reports* --** These are more structured messages that report on the situation that exists where you are assigned. They are based on your observations or information you receive.

Example: Preliminary Safety Assessment Reports

- ***Tactical Traffic* –** Essentially, a conversation on the radio for resource or activity coordination.

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Frequency Plan

Resource Net:	**147.570 MHz**
Message Net:	**146.460 MHz**
ICP local Net:	**146.595 MHz**
ICP Cross Band:	**446.500 MHz**
CARES Command:	**440.150 MHz, + offset, PL=100.0**

The Drill is On!

Drill Objectives:

1.Exercise emergency voice and packet communications message handling procedures.

2.First-time deployment of a Cross-band repeater

3.Exercise our ability to move material and resources throughout the city.

4.Deploy, set up, and manage a field ICP to support a Search and Rescue event and Field First Aid Treatment Center.

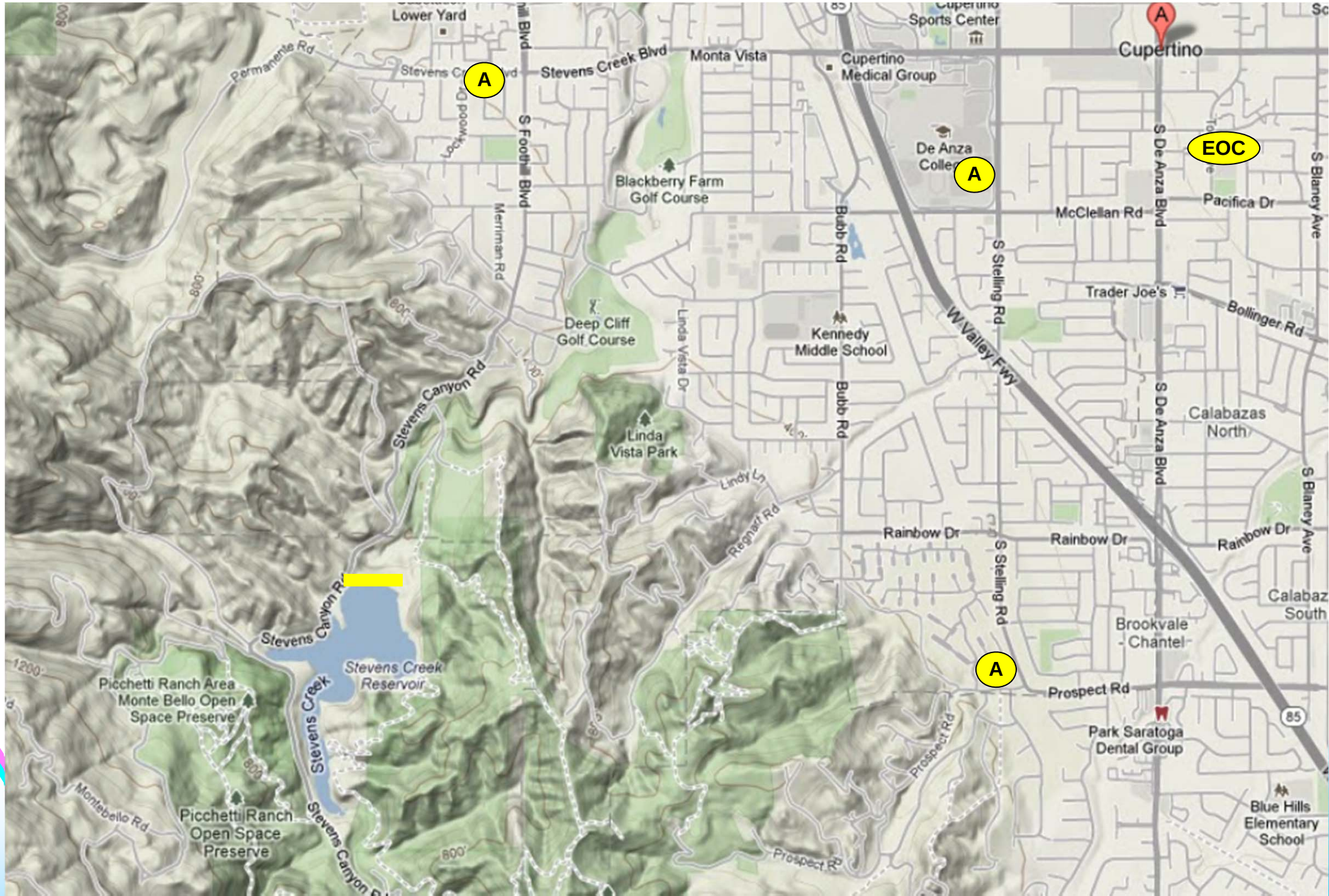
Logistics:

- Saturday, October 26; 7:30am to ~5:00pm
- Two 4 hour shifts; participate as little or as much as you want!
- 7:30 Earthquake occurs at 7:30am… what do you do?!

Thank you

Any Questions?

Cupertino Topography



Message Handling

Anatomy of a Message

- **Message ID…** Assigned by the NCS Operator
- **Precedence…** determines the urgency of the message (Emergency, Urgent, Routine)
- **Destination…** If omitted, deliver to EOC Planning or Ops Section
- **Date/Time…** Time the message was created. If omitted, receiving station enters the Date/Time the message was received.
- **Subject…** Short Title
- **Message Text…** Description of the situation or request. Includes:
  - Type -- (initial, follow-up, final, correction)
  - Location -- Include the neighborhood or street name; Include major cross-street

Message Handling

4a. Precedence (Priority)

- ***Emergency* --** Life-threatening: Situations, reports, and updates that might directly result in deploying or prioritizing resources for an incident involving life-saving efforts. When in doubt, DO NOT use this designation.
- ***Urgent* --** Property threatening: Situations and reports of new threats, revised flood projections, wind direction changes in a major fire, and reports of additional damage from earthquake aftershocks suggesting additional rescue efforts or surveillance.
- ***Routine* –** PSA reports, correspondence between agency representatives, material and logistics messages, routine resource requests, shift planning, relief requests, etc.
- ***Health & Welfare* --** Includes welfare inquiries

Message Handling

4b. Precedence (Priority)

Handling Mixed Urgency Messages

- If you have a mix of different message priorities, deliver the specific message priority (EMERGENCY and URGENT) when called.
- Deliver the balance of the report (ROUTINE and Health and Welfare) when called.

Message Handling

Who does what?

NCS Operator

- Acknowledges stations with traffic and prioritizes by precedence.
- Ensures both sending and receiving station are ready to exchange traffic.
- Assigns the Message ID.

Sending Station

- Creates the message with minimally the (i) Message number, (ii) Precedence, (iii) Subject, and (iv) Text.
- Delivers the message slowly, with breaks.
- Makes the ICS 309 Log Entry

Receiving Station

- Records the message as sent.
- Acknowledges receipt of the message. May ask for fills or repeats.
- Keeps related messages together.
- Routes the message as directed.
- Makes the ICS 309 Log Entry

Message Handling

The flow of sending a Message

***KN6PE*:** **"Net Control, this is KN6PE with EMERGENCY Traffic for EOC"**

NCS: ***KN6PE, acknowledged. EOC, are you ready to copy traffic?***

***EOC*:** **"EOC is ready"**

NCS: ***KN6PE, your message number is 29. Send your traffic to the EOC.***

***KN6PE*:** **"EOC, This is Message 29.**
Subject is: House Fire. Break"

EOC: ***"OK, Continue"***

"Messages is: House fire at 12345 Woodhill Court. Break"

EOC: ***"OK, Continue"***

Cross-street is Prospect and Stelling. Break."

EOC: ***"OK, Continue (with the message)"***

***KN6PE*:** **"Area water pressure appears to be low. End of Message. This is KN6PE"**

EOC: ***"Acknowledged. This is WA2KDX, back to net."***

NCS: ***Other stations with emergency traffic, please identify now.***

Message Handling

Guidelines

As the Sender…

- During an emergency, say as little as possible, yet convey all of the meaning
- Send as fast as you can write it
- Send about 5 words, then say “Break” and pause to let the receiver copy it down

As the Receiver...

- Its OK to ask for a “repeat” if you miss any part of a message
- Its OK to ask the sender to slow down
- Reply with “OK, Continue”, or something else to acknowledge that message block
- You do not need to repeat the message back if you are confident you heard it correctly.

Field Message Handling

The Field Message Handling Reality

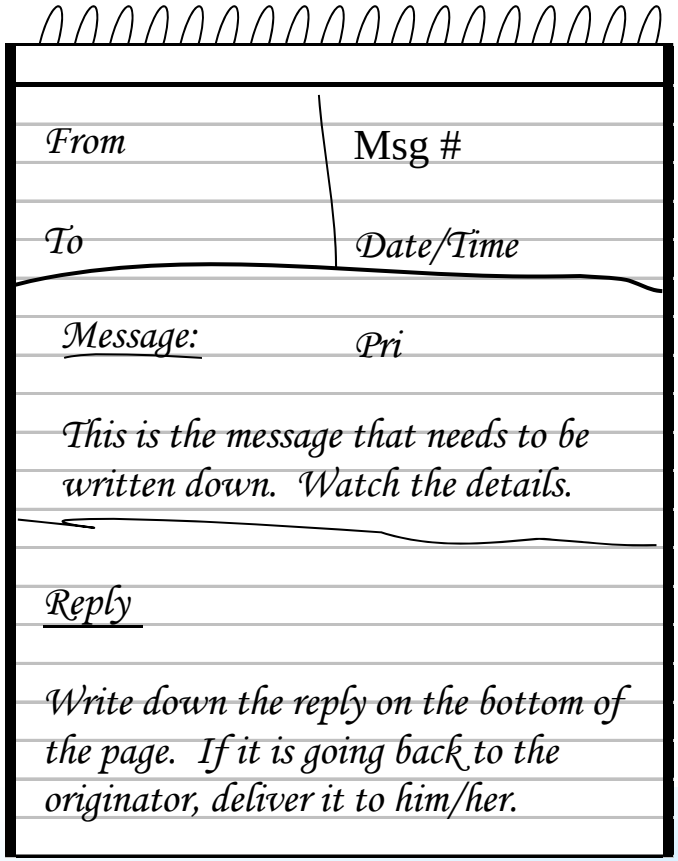
- Ideally, we carry lots of pads of pre-printed Message Forms
- Or, the minimum things we need to have:
  - Pencils, Clipboard or folder, and any one of these…
    - Spiral note pad
    - Index Cards
    - Pad of Paper
    - Post-its
  - ICS 214 Unit Log, ICS 309 Communications Log
- Creating a message
  - MESSAGE NUMBER
  - FROM: Know who is giving you the message
  - TO: Know who needs to get it
  - MESSAGE: If detailed or technical, verify you have it correct
- Create your own message forms:
  - One message per page / card / sheet / etc.
  - Quick format each form (next page)

ICS-213 Message Form

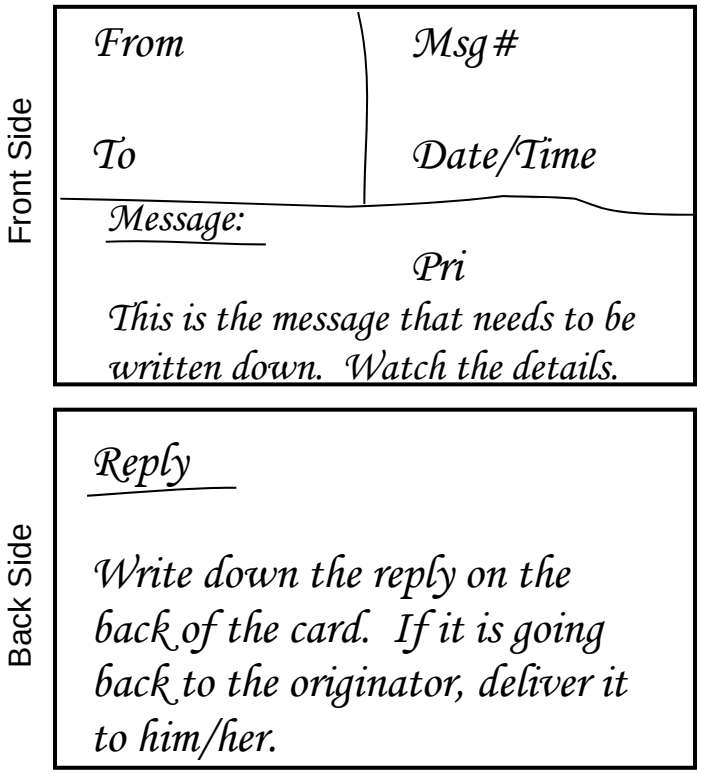
Ad-hoc Field "Message Forms"

1. You should anticipate that field messaging will be extensive.
2. You are encouraged to "Keep it Simple" with a message form solution, for example…

Note Pad



Index Cards



ICS 309 Communications Log

1. *Activation #* - The number is assigned by the EOC for this event.
2. Date/Time Prepared
3. *Operational Period* - Identify the time period that is covered by your shift.
4. A*ssignment/Location* - Assigned by the Incident Commander.
5. *Operator Name* – Your name, and call sign
6. *Station ID* - This may be your Tactical Call or your Physical Assignment.

COMMUNICATIONS LOG	Activation # CUP-10-27	DATE PREPARED: 12/4/10 TIME PREPARED: 0800
FOR OPERATIONAL PERIOD # 0800 - 1600	ASSIGNMENT/LOCATION: Seven Springs ARK	
RADIO OPERATOR NAME (LOGISTICS): Jim Oberhofer KN6PE	STATION I.D. Seven Springs ARK	

LOG

TIME	STATION I.D. FROM	STATION I.D. TO	SUBJECT

PAGE __ OF __ ICS 309

REV 96/04/22

ICS 309 Communications Log

7. LOG – The log consists of the Time that an event occurred.
8. Time – Use Military time… 24-Hour Clock.
9. From – The station originating the message.
10. To – The station receiving the message.
11. Subject – subject of the message. Include the message ID if assigned.

- At 24:00, your log will end, next log will start 00:00.

COMMUNICATIONS LOG	Activation # CUP-10-27	DATE PREPARED: 12/4/10 TIME PREPARED: 0800
FOR OPERATIONAL PERIOD # 0800 - 1600	ASSIGNMENT/LOCATION: Seven Springs ARK	
RADIO OPERATOR NAME (LOGISTICS): Jim Oberhofer KN6PE	STATION I.D. Seven Springs ARK	

LOG

TIME	STATION I.D. FROM	STATION I.D. TO	SUBJECT
0815	EOC	KN6PE	CUP045, request info on staffing
0824	KN6PE	EOC	CUP047, reply with staffing info
0831	EOC		Health & Welfare check

PAGE __ OF __ ICS 309

REV 96/04/22