Cupertino Dam Break

And the CARES Response

4 October 2012
Jim Oberhofer KN6PE

Topics

1. About us
2. A Cupertino flooding 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

Mapping Disasters to Capabilities

Disasters

- Earthquakes
- Flooding by dam failure
- Flooding by rain
- Wild land fire
- Large urban fire
- Manmade disasters (BNICE)

Potential Problems

- People – Injuries
- People – Trapped
- People – Homeless
- People – Hungry
- People – Sick
- Structures Damaged
- Structures Burning
- Utilities – Power
- Utilities – Gas main
- Utilities – Sewage
- Utilities – Water
- Access problems

Response Requirements

- Mass care shelters
- Evacuations
- Field First Aid stations
- Mass care, feeding
- DC/Fire Suppression
- DC/Prelim Safety
- Mass Prophylaxis
- Search and Rescue
- Information Outreach

Response Capabilities

- Safety Assessments
- Shelter Staff
- Search & Rescue
- First Aid
- Fire Suppression
- Watches (creek, fire, traffic, incident, etc)
- Communications (Field, Shadows, etc)
- General resource

Flooding

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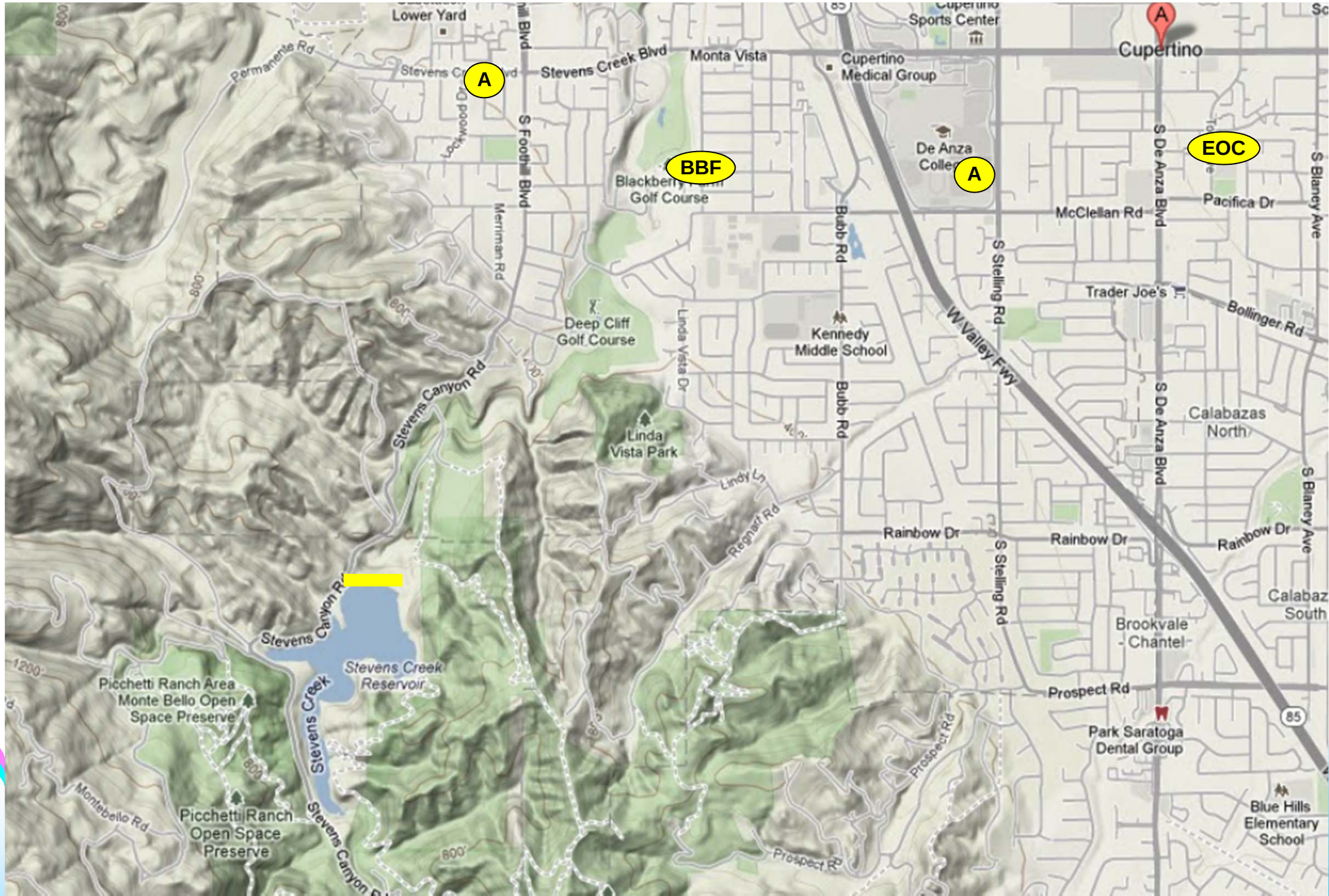
Cupertino Topography



Flooding Scenario

Initial Response Actions

City Staff	• Informed of a problem • Resident notifications(?) • Initiates CARES, CERT, MRC activation
County Fire	• Search and Rescue
County Sheriff	• Direct Evacuation • Public Safety, Traffic Control • Law and Order
CERT, MRC	
CARES	

Flooding Scenario

CARES response assignments

EOC Support	Provide backup communications for the EOC as required
Field Response	CARES members respond and operate in a field assignment during a declared emergency.
Preliminary Safety Assessment	Not required
Infrastructure Safety Assessment	Possibly required ... Depending on served agency resource constraints.

Authorization to activate

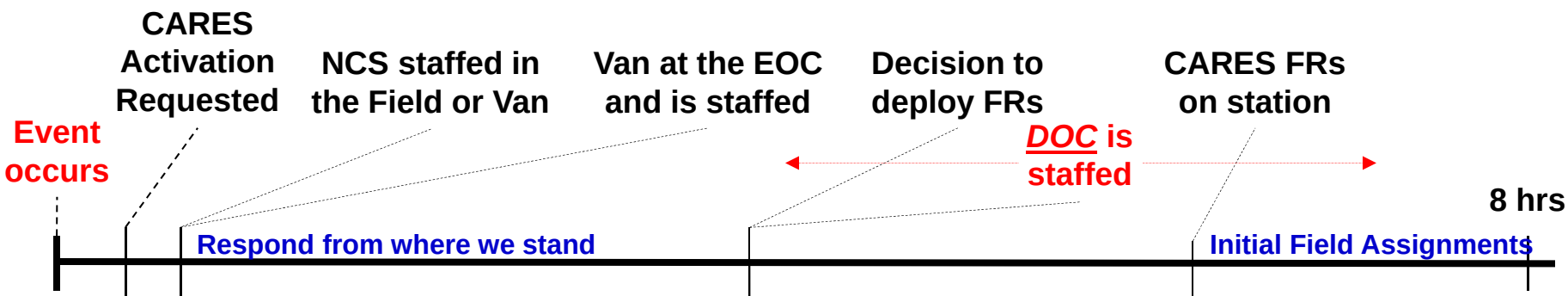
1. This is not a self-announcing event (like an Earthquake); therefore, ***NO auto-activation!***

9.1.2 Self-announcing Natural Disasters

The following direction is authorized per the following reference:
Emergency Operations Plan, City of Cupertino, Part I Basic Emergency Plan, Section XI Volunteers and Disaster Service Workers, page 43.

- During self-announcing natural disasters, CARES members may self-dispatch and commence windshield surveys to provide situation status and Preliminary Safety Assessments provided it is safe to do so.
- CARES members may also respond to Mutual Aid requests and may become part of the Santa Clara County Operational Area ARES/RACES team.
- For all other events (natural and man-made), requests for DSWs will be announced via telephone, courier, radio, and television.
- Volunteers will not respond to any act of terrorism unless specifically requested by the EOC or their City contact person.

Initial Response Ops – Flooding



NCO
-Take CARES check-ins
-Check for FR availability

EC/AEC/Shift Supervisor
-Describes the situation to the Net

EC/AEC
Receives City request for CARES activation
-Initiates Cupertino ALERT ring-down
-Contacts, directs the Van to EOC
-Contacts, directs an RRO to the EOC

Shift Supervisor
-Decision to deploy to the field
-Make field assignments, Voice & Packet
-Get the Packet Kits into the Field

-Confirm additional Information requirements
-Direct Responders
-Resource Planning

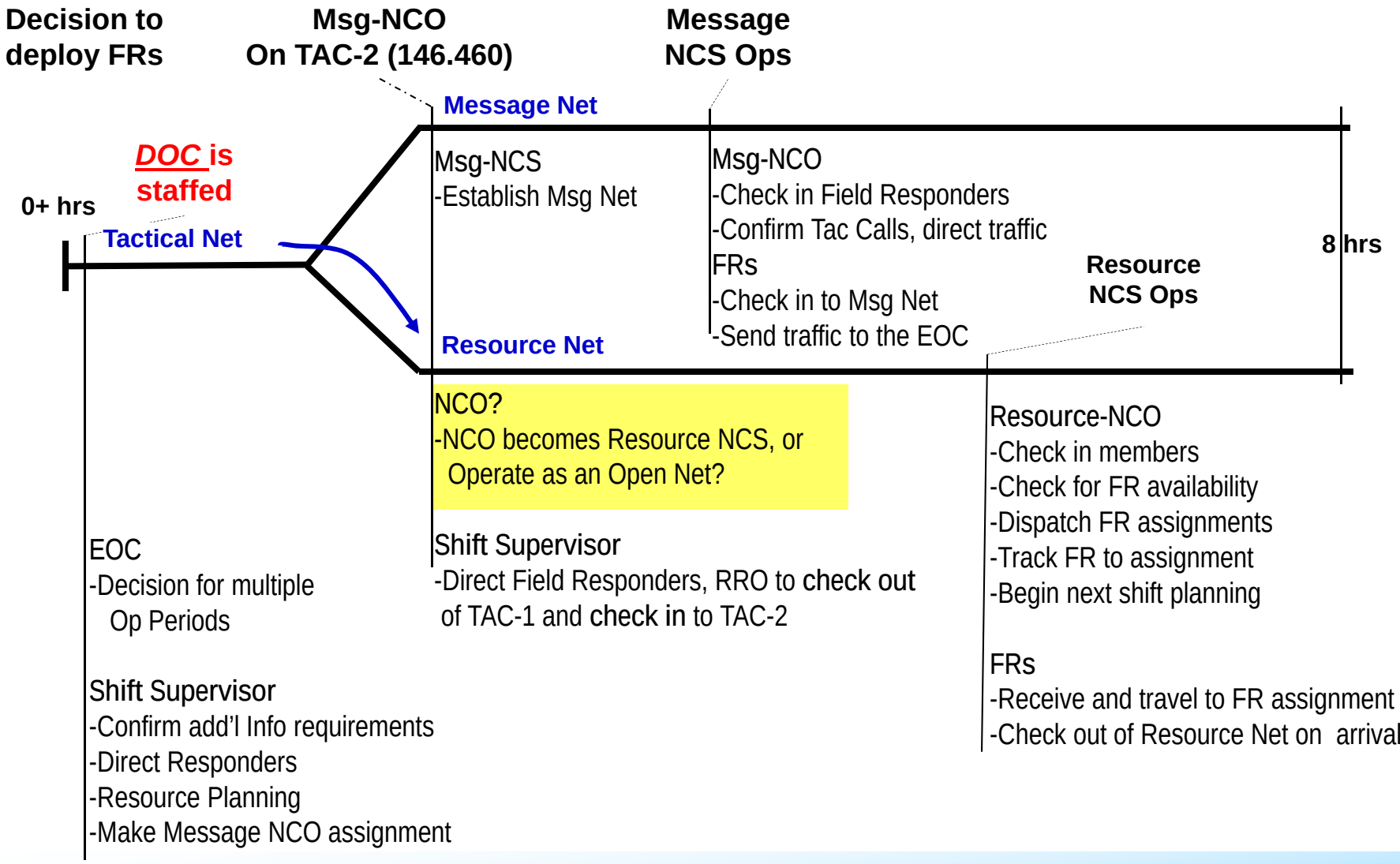
FRs
-Setup at the ARC, Field locations
-Set up Packet Kits
-Receive, Send ARC traffic
-Sort, prioritize, and send traffic

Terms

FR – Field Responder
NCO – Net Control Operator
RRO – Radio Room Operator

Extended Response Ops – Flooding

Tactical, Message & Resource Net



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 t 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.

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

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.

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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)

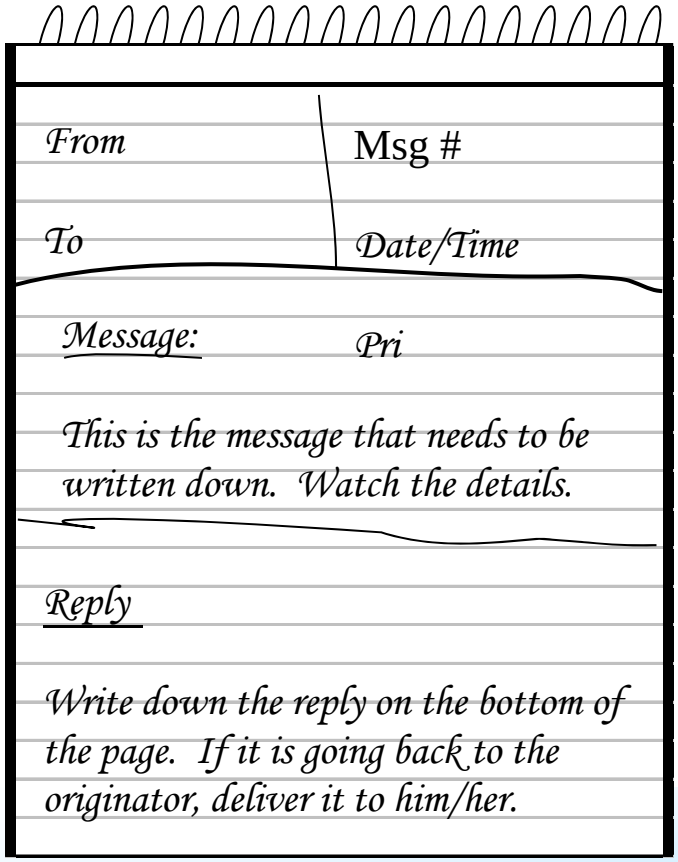
ICS-213 Message Form

Ad-hoc Field “Message Forms”

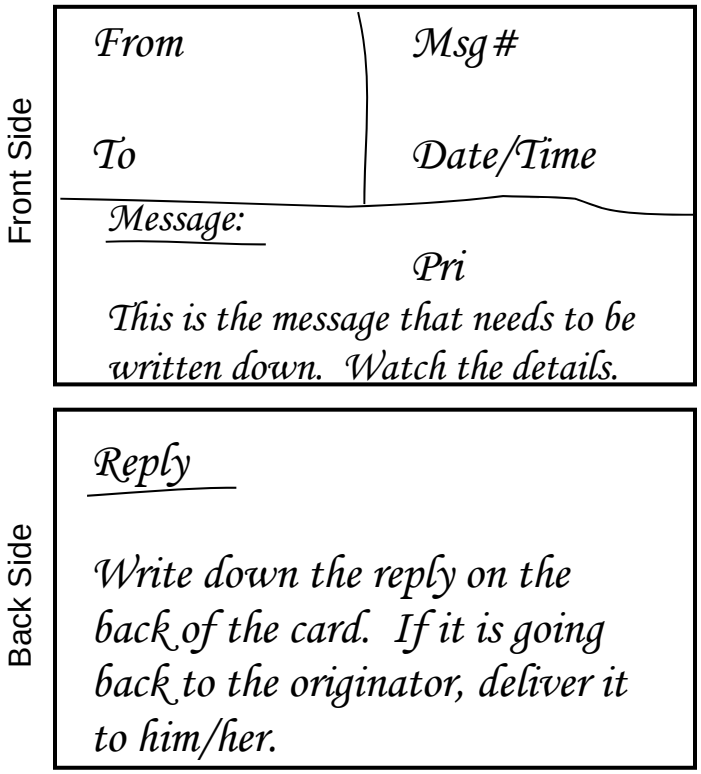
1. You should anticipate that field messaging will be extensive.

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

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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

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REV 96/04/22

The Drill is On!

Date: Saturday, October 27

Net starts at 8:30am

Objectives:

1. Make it a fun event for everybody involved
2. Focus on CARES, CERT and MRC skills
3. Establish a remote Incident Command Post
4. Simulate activation by the EOC;
Exercise the new DOC concept

CCC Drill Overview

- Partial failure of Stevens Creek Dam causes flooding along the flood plane
- EOC activates Citizen Corps to attend to the situation at Blackberry Farm
- A limited number of ARKs will be opened, and a remote ICP will be set up
- Most field operations will be conducted from the remote ICP

CCC Drill Activities

EOC / DOC

- Activation of Citizen Corps
- Management of the CCC response:
- Mission
  - Resource require'ts
  - Establishing ICPs
  - Status reports
  - Resource requests
  - Shift change
  - Demob

CARES

- EOC support
- Voice and packet
- Field support (based on resource requests)
- Focused ISA

CERT

- Establish a remote ICP
- Safety assessment
- Utility shutoff
- Search & rescue
- Triage
- Victim transport
- Fire control
- Cribbing

MRC (tbd)

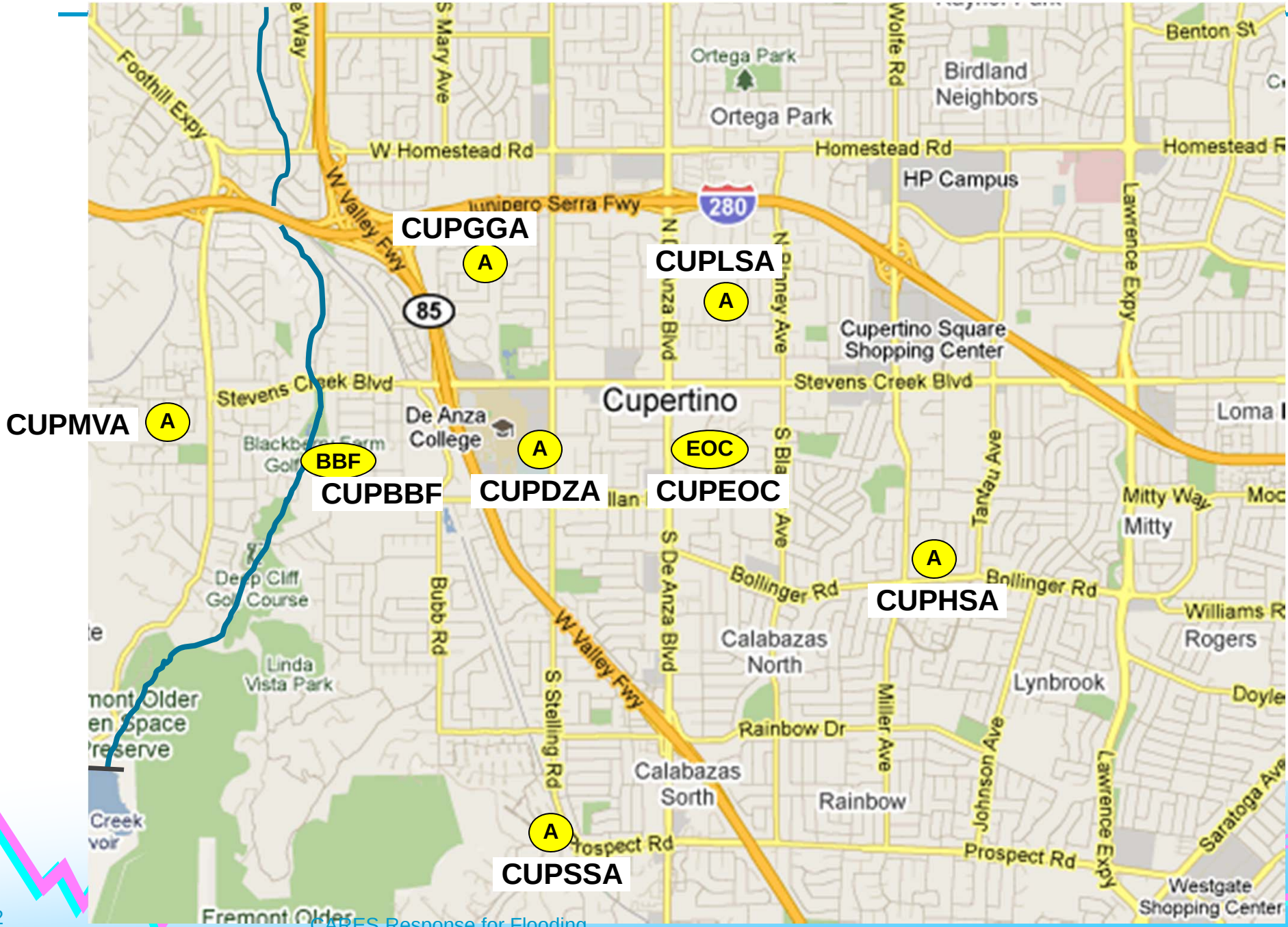
- Setup treatment area
- Secondary assessment
- Treatment
- Handover and transport

CARES Drill Objectives

CARES Drill Objectives

1. Exercise CARES response procedures -- message handling, net control, resource planning
2. Pass voice and packet messages from the Field
3. Operate from the Comm Van at the EOC

Event Landscape



Resource Planning

CARES Drill Objectives

- One day, 2 3-hour shifts
- Staffing -- Comm Van
    - Shift supervisor
    - 2 operators
- Staffing – Field Sites
    - 4 SAR Field Responders at BBF
    - 2 operators at BBF IC
    - 2 Field Responders, Dam
    - 2+ Responders, focused Infrastructure Safety Assessment

27-Oct, 8:30am

Where are we in the life of this event?

- The dam burst 5:00am
- City activates the Cupertino Alert System
- CARES checks into the CARES Net at 8:30am
- …

Thank you

Any Questions?