
Cupertino Amateur Radio Emergency Service

Topic: *Earthquake!* The CARES Response

Speaker: Jim Oberhofer KN6PE, EC Cupertino ARES

Date: Thursday, 06-November-2008, 19:30

Event: Cupertino ARES meeting, Orientation Training

Earthquake! The CARES Response



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
- Wildland 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

Earthquake

Disasters

- **Earthquakes**
- Flooding by dam failure
- Flooding by rain
- Wildland 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

Disasters

- Earthquakes
- **Flooding by dam failure**
- **Flooding by rain**
- Wildland 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

Wild land, Urban Fire

Disasters

- Earthquakes
- Flooding by dam failure
- Flooding by rain
- **Wildland 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

Man-made disaster (Biological)

Disasters

- Earthquakes
- Flooding by dam failure
- Flooding by rain
- Wildland 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
- Access problems

Response Requirements

- Mass care shelters
- **Evacuations**
- **Field First Aid**
- 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

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	<ul style="list-style-type: none"> • Preliminary Safety Assessment 	<ul style="list-style-type: none"> • Take care of family at home 	<ul style="list-style-type: none"> • Take care of family at home 	<ul style="list-style-type: none"> • Take care of family at home
Activation / Mobilization	<ul style="list-style-type: none"> • Help with the initial EOC staffing 	<ul style="list-style-type: none"> • Activate the CARES emergency net • Check into the net • Preliminary Safety Assessment 	<ul style="list-style-type: none"> • Respond to organized neighborhood • Neighborhood PSA • Respond to local Ark 	<ul style="list-style-type: none"> • Respond to local Ark
Deployment (Help stabilize the situation)	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • EOC Radio Room staffed • Deploy Field Responders (Arks, Fire Stations, Shelter, Medical, etc) • Infrastructure Safety Assessment • Provide served agency support (per plans) • Build staffing plan 	<p>Ark Deployment</p> <ul style="list-style-type: none"> • Activate Ark • Establish, staff ICS • Check in volunteers • Receive process community assistance requests • Assemble, dispatch SAR, First Aid teams • Support Ark Site staff • Assign to survey teams; verify the Cupertino 100 • Build staffing plan 	<ul style="list-style-type: none"> • Establish First Aid Station at Ark (?) • Deploy as requested • Build staffing plan

Earthquake Scenario

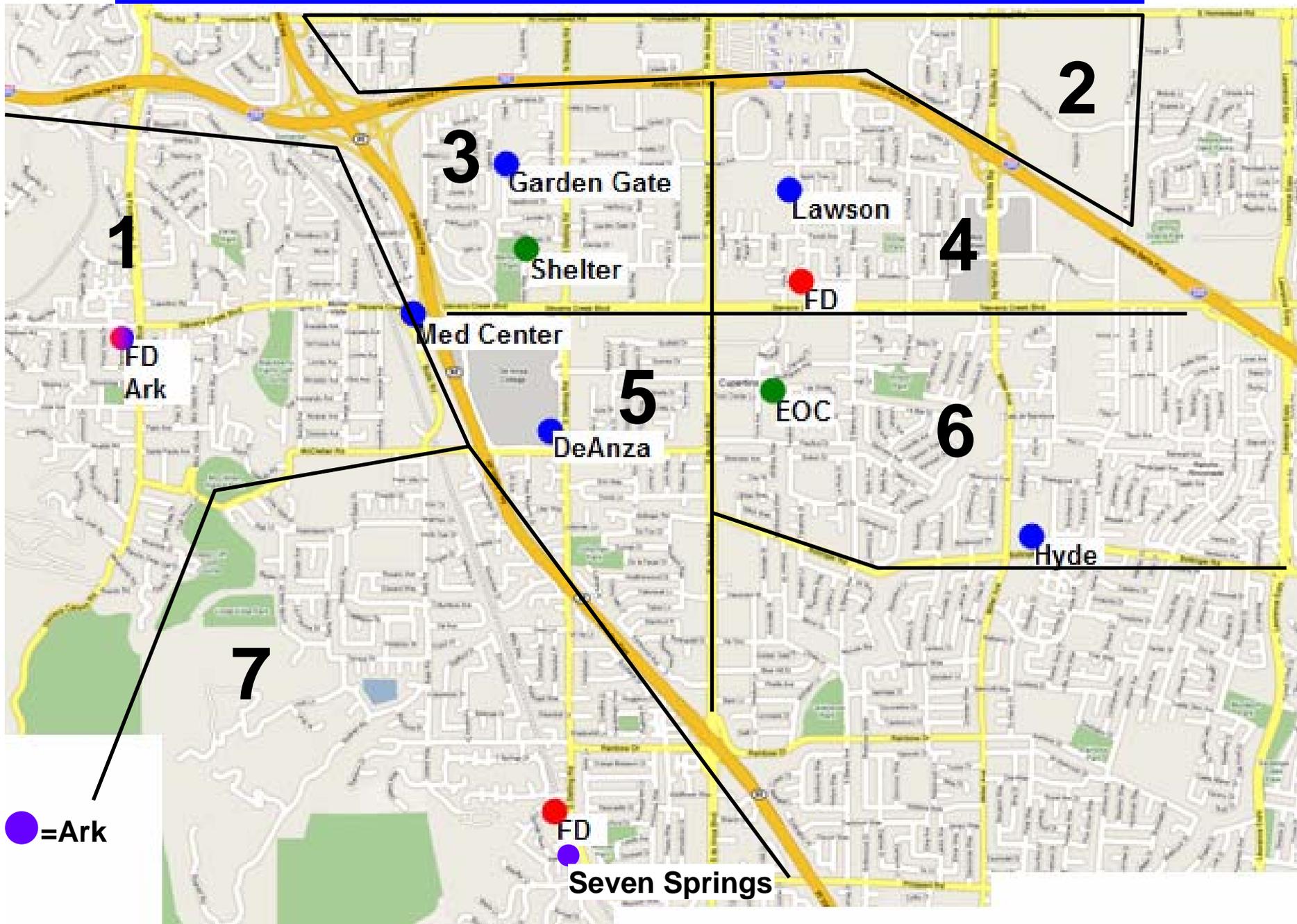
Objective: mitigate further damage to infrastructure and property, preserve life, restore services

	What the EOC needs	CARES	CERT	MRC
Recovery	<ul style="list-style-type: none">• Field Status Reports	<ul style="list-style-type: none">• Operational period reports	<ul style="list-style-type: none">• Operational period reports	<ul style="list-style-type: none">• Operational period reports
Demobilization	<ul style="list-style-type: none">• List of supplies to be replenished	<ul style="list-style-type: none">• Personal Equipment inventory• CARES asset inventory	<ul style="list-style-type: none">• Personal Equipment inventory• Ark asset, supplies inventory	<ul style="list-style-type: none">• Personal Equipment inventory• Ark First Aid asset, supplies inventory

Earthquake Scenario

Served Agency	Critical Need
City of Cupertino	<ol style="list-style-type: none"> 1. Preliminary Safety Assessment 2. ARK communications support 3. Critical facility staffing 4. General communications support
Santa Clara County Fire	Infrastructure Safety Assessment
Cupertino Sanitary District	Infrastructure safety assessment
San Jose Water Company	Infrastructure safety assessment

Other critical agencies	Need
Cupertino Medical Center	Communications w/ the city
Cal Water	Infrastructure Safety Assessment
Santa Clara Valley Water	Infrastructure safety assessment
Union Pacific RR	Infrastructure safety assessment

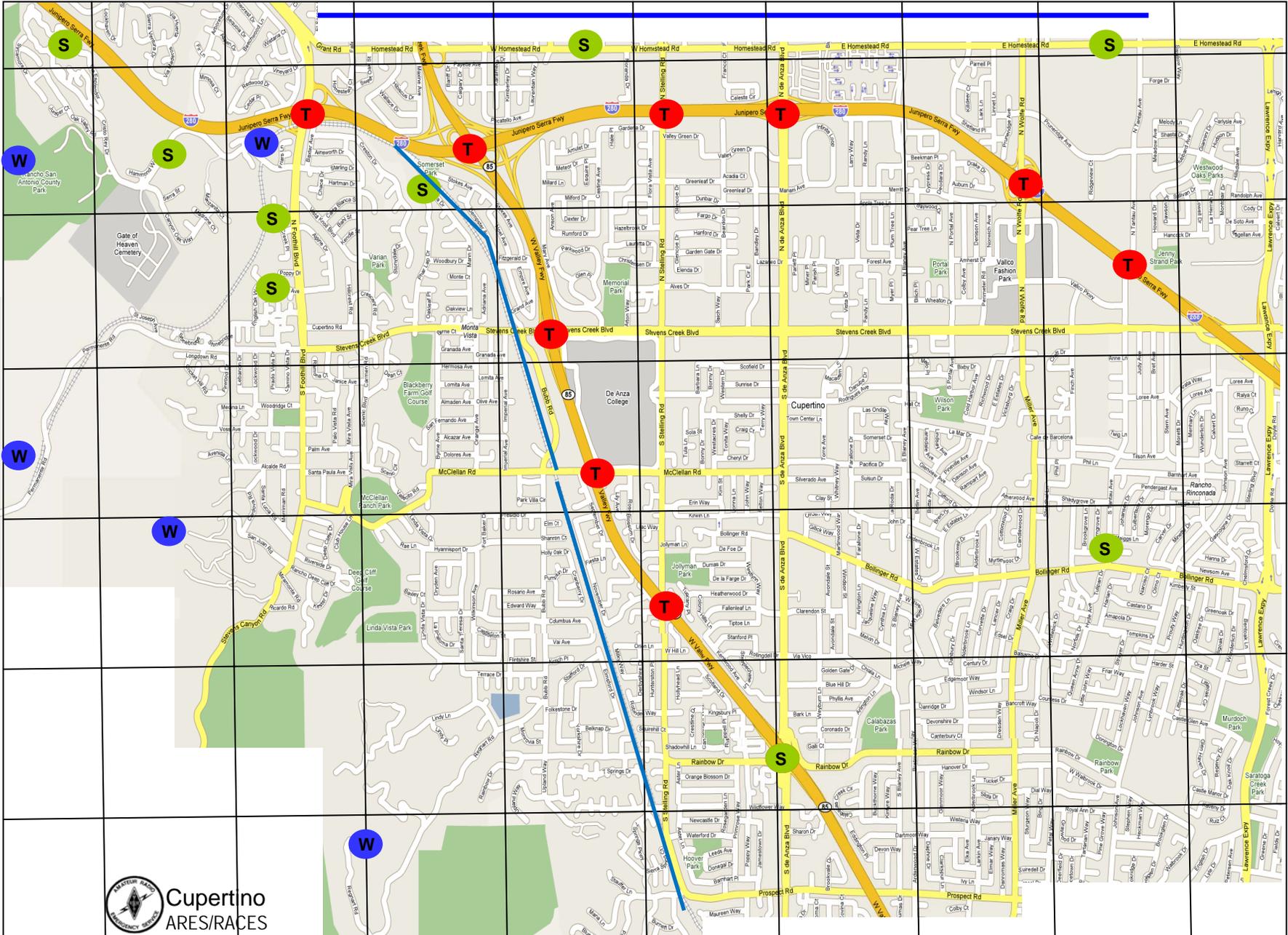


A
B
C
D
E
F
G

1 2 3 4 5 6 7 8 9 10



Cupertino
ARES/RACES



Earthquake Scenario

Initial Response Assignments

City Staff	<ul style="list-style-type: none">• Inspect City facilities
County Fire	<ul style="list-style-type: none">• Fire suppression• Search and Rescue
County Sheriff	<ul style="list-style-type: none">• Public Safety• Law and Order
CERT, MRC	<ul style="list-style-type: none">• CERT operations (SAR, medical, care and shelter, etc.) and support for:<ul style="list-style-type: none">– Organized neighborhoods– Area Ark activities
CARES	<ul style="list-style-type: none">• Preliminary Safety Assessment• Emergency field comm support• Infrastructure Safety Assessment

Earthquake Scenario

CARES response assignments

Preliminary Safety Assessment	CARES collects and reports information about the state of the city immediately after a city-wide emergency or disaster occurred.
Field Response	CARES members respond and operate in a field assignment during a declared emergency.
Infrastructure Safety Assessment	CARES observes and reports on selected Cupertino critical facilities that are deemed to be important to the City or other Agencies.

Authorization to activate

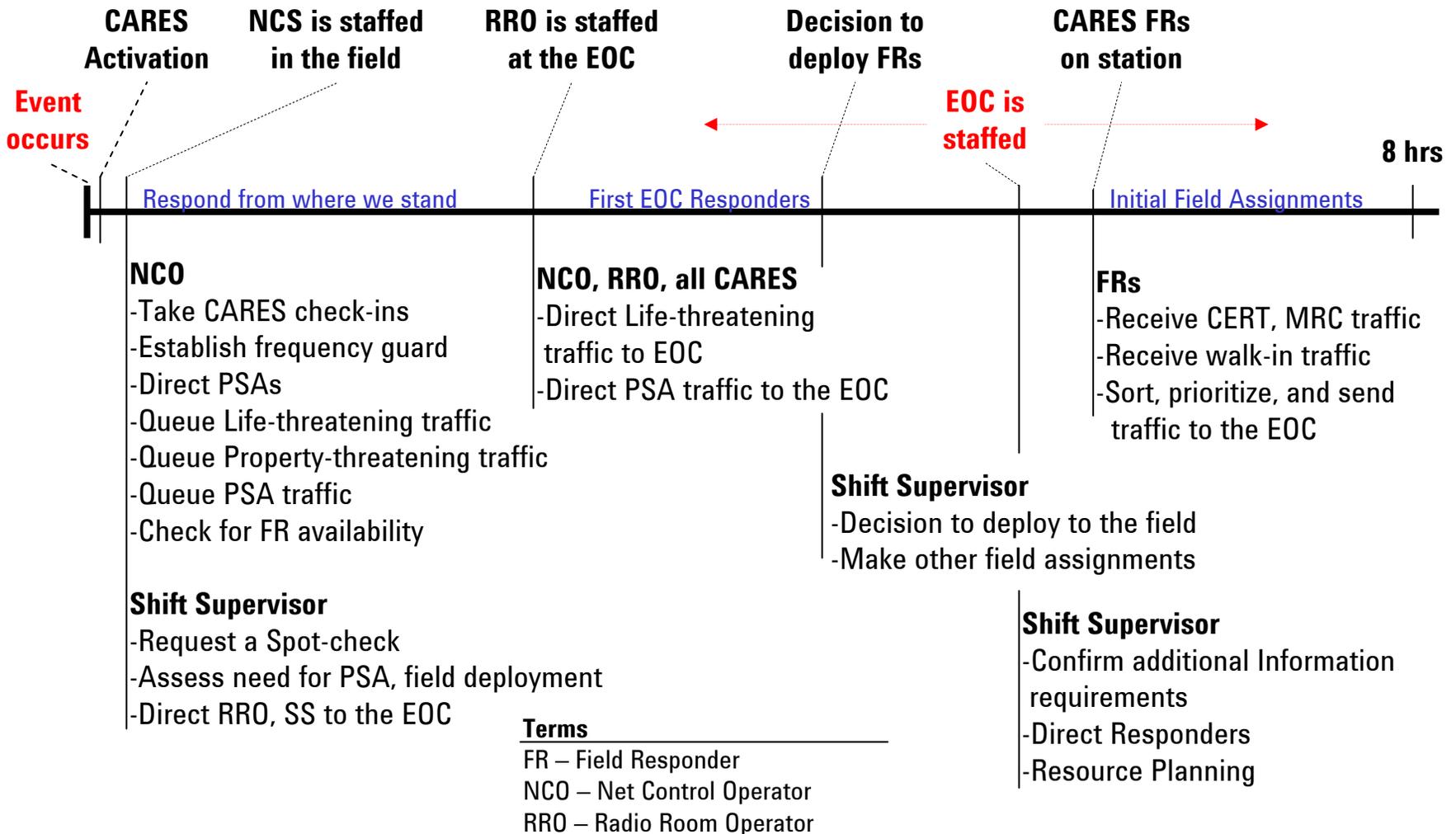
9.1.2 Self-announcing Natural Disasters

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.

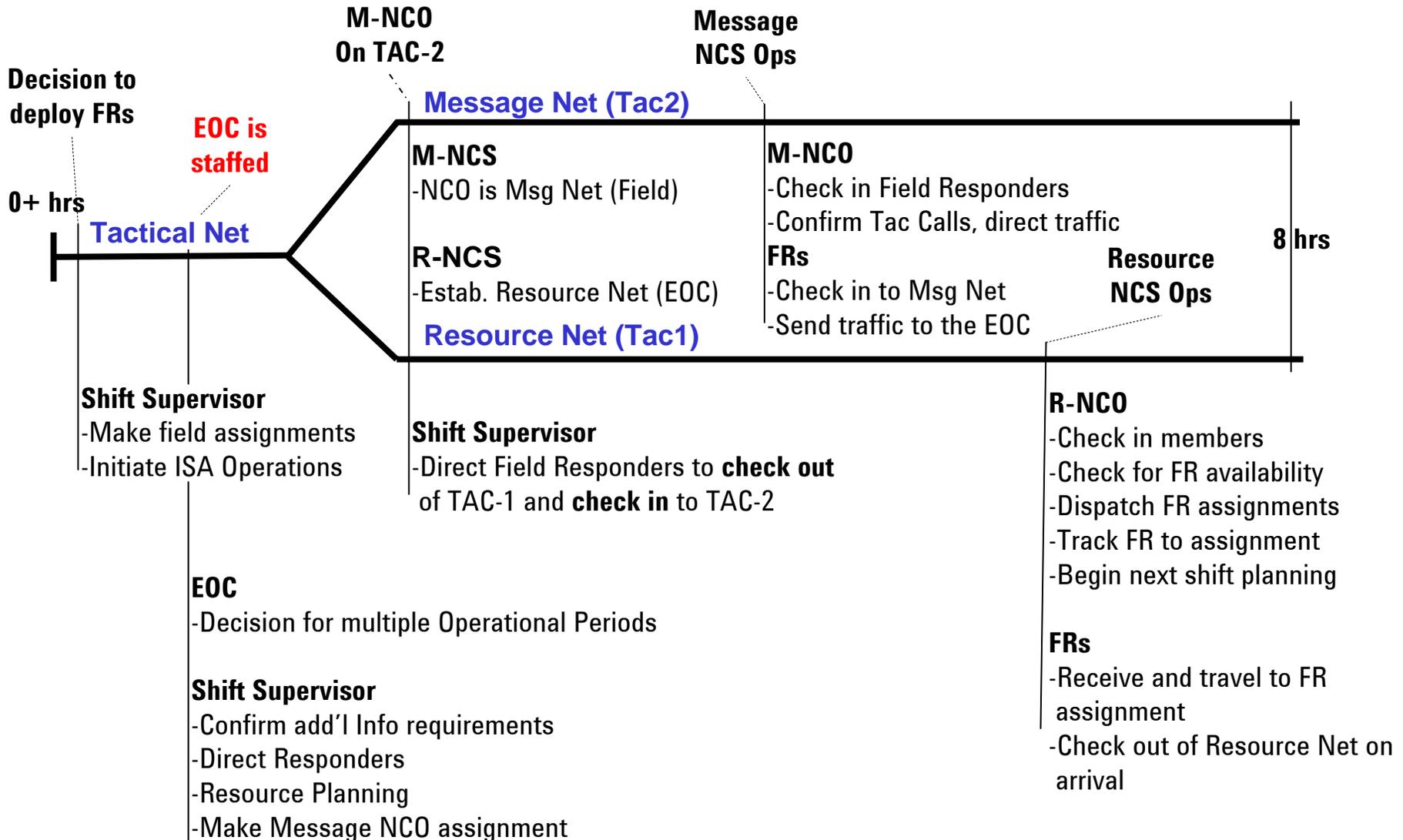
Field Operations

Initial Response Operations



Field Operations

Extended Response Ops – Resource Management



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. Then
 - Check out of the Resource Net
 - Check into the Message Net
- When done with your assignment...
 - Check out of the Message Net
 - Check into the Resource Net
 - Stay on the Resource Net until you return home, then check out of the Resource Net

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.

What is required for an ISA?

Infrastructure Safety Assessment

- People: The CARES or CCC members responsible for performing an ISA
- Infrastructure Assets: The list of things that the city wants to know about as soon as possible
- ISA Process: The procedure that describes how CARES will collect and report information about the Infrastructure assets to the city after a city-wide emergency or disaster has occurred.

ISA Management

Field View

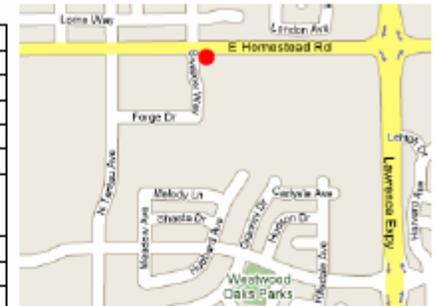
1. ISA Assignment Sheet

- Identifies the item or structure to be assessed.
- Detailed description (as best possible)
- Description of the Nominal conditions, and what to confirm and report.
- Map and pictures when available

Infrastructure Safety Assessment

IDENTIFICATION

ISA ID:	SAN-47
ISA Name:	Pump Station #1, Metering
Description:	
Operator:	Cupertino Sanitary District
Contact:	(408) 253-7071, (408) 299-2507
Cupertino Grid:	B10
Address:	SE corner of Homestead Road & Swallow Drive (1 block east of Tantau)
Cross-street:	
Latitude:	37.3377
Longitude:	122.00232
Observation Point:	



DETAILED DESCRIPTION

This is a metering station that consists of the following:

1. Well Access (ground-level box with access lid)
2. Meter pedestal, PGE meter, phone number plate includes the following: (408) 253-7071, (408) 299-2507

...and no others



NOMINAL CONDITION –Confirm/What to Report

1. Pedestal and well access are in place.
2. No surrounding surface or structural cracks or deformations.
3. No spillage or discharge from the well or surrounding area.



Last 2 drills – what went well?

1. Good response enthusiasm
2. Team members showed flexibility to the changing EOC needs
3. T-card resource tracking system in EOC
4. Found plenty to do prior to being deployed (prep)
5. NCS Handling message priorities
6. Shift change

Last 2 drills – improvement opportunities

1. Need NCS Time Check to synchronize watches, logs
2. Message passing... 5 words then BREAK! (wait for a acknowledgement)
3. Need more message training, experience
4. Tracking people on the nets needs to be better
5. EOC Radio (Tac 1) has an intermod problem
6. Hold more Health & Welfare checks
7. Cross-band repeater use was confusing
8. Forms – Need PSC roll-up forms re-stocked at EOC
9. Forms – Need a message log for the EOC RRO
10. Forms – Need resource net tracking form

Pre-Drill Check-out

- Confirm your radio can get to CARES TAC-1, -2, and -3 (440)
- Do you have these forms on hand?
 - ICS-214... Event Log
 - COES-203... PSA
 - COES-204... PSA Roll-up
 - <http://www.CupertinoARES.org/ccs>, then click Forms
- Message forms (or note pad, index cards, etc)
- Radio, power
- City Map
- Binoculars, GPS

Earthquake! CARES Drill

S.E.T. Drill

- Objective:
 1. Message handling from the field
 2. People logistics management
- When: Saturday, 8-Nov, 9:00m to 12:00pm
- Where: Start from your home location
- Who: All CARES members
- What:
 1. Assume just completed and delivered your PSA
 2. Plan for a field assignment
- How:
 1. Net is opened at 9:00a, take check-ins
 2. State availability for a field assignment
 3. OK if you can only participate for a few hours,
 4. Deploy for ISAs, Field Assignments
 5. If you have a Buddy, bring him/her!



Cupertino
ARES/RACES