# **Preliminary Safety Assessment Process Overview**

4 January 2014 Jim Oberhofer KN6PE

Updated: 12 January 2016

## **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**

What is everyone doing? Initial Response Assignments

City Staff	<ul><li>Inspect City facilities</li><li>Staff the EOC</li></ul>	
County Fire	<ul><li>Fire suppression</li><li>Search and Rescue</li><li>Mutual Aid</li></ul>	
County Sheriff	<ul><li>Public Safety</li><li>Law and Order</li></ul>	
CERT, MRC	<ul> <li>CERT operations (SAR, medical, care and shelter, etc.) and support for:         <ul> <li>Organized neighborhoods</li> <li>ARK ICS, response</li> </ul> </li> </ul>	
CARES	<ul> <li>Preliminary Safety Assessment</li> <li>Field communications (ARKs, Fire Stations, shadows)</li> <li>Infrastructure Safety Assessment</li> </ul>	

# **Earthquake Scenario**

Served Agencies	Critical Need		
City of Cupertino	<ol> <li>Preliminary Safety Assessment</li> <li>ARK communications support</li> <li>Critical facility staffing</li> <li>General communications support</li> </ol>		
Santa Clara County Fire	<ol> <li>Infrastructure Safety Assessment</li> <li>Community contact at Fire Stations</li> </ol>		
Cupertino Sanitary District	Infrastructure safety assessment Infrastructure safety assessment		
San Jose Water Company			
Other critical agencies	Need		
Cupertino Medical Center	Communications with the city		
Cal Water	Infrastructure Safety Assessment		
Santa Clara Valley Water District	Infrastructure safety assessment		
Union Pacific RR	Infrastructure safety assessment		
County EOC	Communications with the city		

Cupertino ARES/RACES

#### What is it?

#### **Situation**

- The Cupertino EOC needs a rapid assessment of the state of the city so that response resources can be assigned to have the maximum impact.
- During city-wide disasters, regular communications channels may be disrupted, leaving EOC decision-makers with little information to go on.



#### What is it?

### Response

 CARES is chartered to provide Preliminary Safety Assessment (PSA) information when a disaster occurs.

#### **Definition**

- An assessment of magnitude.
- A PSA report <u>occurs early</u> in an emergency. While information may
  be fragmented and incomplete, whatever data is available will
  <u>provide the City with a preliminary assessment</u> of the damage so the
  EOC can <u>determine the best response</u> to save lives, protect
  property, and speed the recovery.
- Early Safety Assessment reports should not be delayed by getting mired in detail in an effort to obtain more extensive assessment information.



When do we do it?

#### **Self-evident Events**

 Earthquakes... These events have the potential for significant damage throughout the Bay Area.

#### **Non-evident Events**

- Flooding... May be localized to a specific area
- Man-made disasters...
- Whenever requested by the EOC



## **Authorization to activate**

Cupertino Amateur Radio Emergency Service PART 2 Procedures Standard Operating Procedures

#### 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 <u>DSWs</u> 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.



1. Once the shaking stops...

### Take care of yourself...

### ... your family

- Determine the condition of your family; apply first aid if necessary.
- Determine the structural soundness of your home; evacuate if necessary.

### ... your neighborhood

### Perform the Preliminary Safety Assessment...

- What you do depends on your situation.
- Do not put your personal safety at risk.
- Do not exceed your physical ability to perform the assessment.



#### 2. Check into the Net

- Turn on your radio and listen.
- If you are the first person on the frequency and have the capability to perform as an Net Control Operator, establish the CARES Emergency Net, or...
- Check in to the net when check-ins are requested.
- If directed, perform the PSA

3. Collecting the data...

#### Collect information on...

- Injuries
- Structure damage
- Fires
- Hazards
- Access

## using...

COES 105 Situation Status / **PSA** (Preliminary Safety Assessment) Form

#### COES 105 Situation Status / PSA Form

Rev 160112 For use by Organized Neighborhoods, CARES Preliminary Safety Assessment Assessment Date/time: Street: Between: Performed by: Map Grid (Chamber Map): Command Post Location: Number of Units Surveyed: Notes/Addresses (use back of page Category Subcategory Count Ref Able to walk away from the incident Injuries, Minor 1.2 Regular breathing, and Injuries, Delayed Address: Capillary refill <2 sec. and Answers questions, responds to 1.3 Rapid Breathing >30/min, or Injuries. Address: capillary refill >2 sec. or Immediate Confused, disoriented OR TRAPPED 1.4 Injuries. no respiration Address: Presumed Dead 2.1 Structure, Light Superficial Damage Damage Broken Windows Cracked or fallen plaster Main damage is to contents 2.2 Structure. Large amount of cracking on exterior Address: Small cracks around doors and Moderate Damage foundations No outward sign of structural damage Partial or full collapse 2.3 Structure, Heavy Address: Building is off foundation Damage Structural damage to the building Fire, Any situation, note if extinguished 3.1 Fire Address: 4.1 Hazards Gas Leaks Address: 4.2 Hazards Sewer Leaks Address: 4.3 Water Main Breaks Hazards Address: 44 Hazards Electrical Power, Lines Down, Units without power? 5.1 Roads blocked Access Other Obstructions Status Report Logged? (initials) OPS Desk Logged Doc Unit Logged Doc Unit Completed COES103 COES104 COES103

## http://www.cupertinoares.org/ccc/forms



About Cupertino Citizen Corps | Links | Forms | Training | Pandemic | General Info

The following forms are used by Cupertino ARES/RACES, Cupertino's CERT, and MRC teams when responding to events throughout the city. All forms below are in PDF format. For a source copy of the forms, please contact kn6pe @ arrl.net.

Form Name	Version
CERT / Ark Forms	
COES100 - Org Chart	May-2008
COES101 - Assistance Request	080519
COES102 - Help Desk Control No Assignment Log	8.080405
COES103 - Planning & Intel Section Event Log	080519
COES104 - Operations Section Event Log	080519
COES105 - Situation Status / PSA	080519
COES106 - Situation Status Rollup / Tracking	080519
COES107 - T-Card (Cupertino version)	
COES108 - Missing Person Form	6.060504
COES121 - Check-in/Check-out	
COES122 - Inventory Form	
COES123 - Logistics Order Form	
COES134 - Logistics Receipt Form	



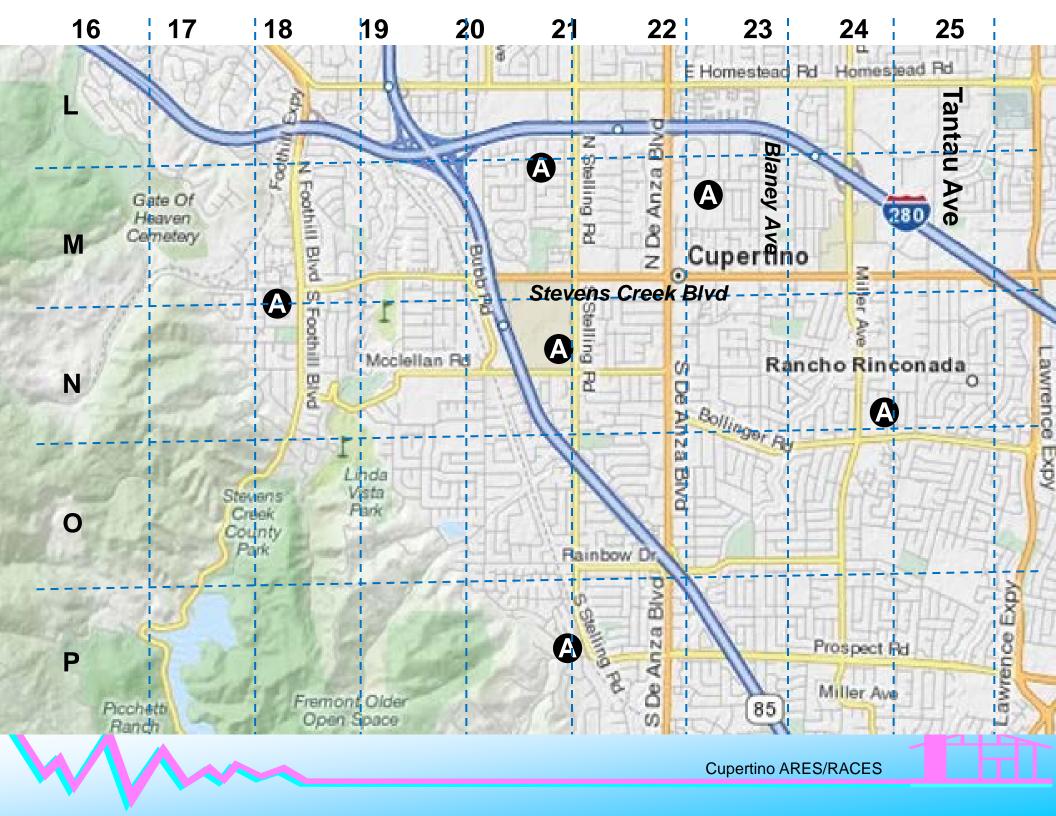
COES 105 Situation Status / PSA Form Rev 160112 For use by Organized Neighborhoods, CARES Preliminary Safety Assessment				Control No:
Assessment Date/time:				Street: Between: and:
Perfo	Performed by: Map G			Map Grid (Chamber Map):
Comr	nand Post Location	1:		Number of Units Surveyed:
Ref	Category	Subcategory	Count	Notes/Addresses (use back of page if necessary)
1.1	Injuries, Minor	Able to walk away from the incident		
1.2	Injuries, Delayed	Regular breathing, and Capillary refill <2 sec, and Answers questions, responds to commands		Address:
1.3	Injuries, Immediate	Rapid Breathing >30/min, or capillary refill >2 sec, or Confused, disoriented OR TRAPPED		Address:
1.4	Injuries, Presumed Dead	no respiration		Address:
2.1	Structure, Light Damage	Superficial Damage     Broken Windows     Cracked or fallen plaster     Main damage is to contents		
2.2	Structure, Moderate Damage	Large amount of cracking on exterior     Small cracks around doors and foundations     No outward sign of structural damage		Address:
2.3	Structure, Heavy Damage	Partial or full collapse     Building is off foundation     Structural damage to the building		Address:
3.1	Fire	Fire, Any situation, note if extinguished		Address:
4.1	Hazards	Gas Leaks		Address:
4.2	Hazards	Sewer Leaks		Address:
4.3	Hazards	Water Main Breaks		Address:
4.4	Hazards	Electrical Power, Lines Down. Units without power?		
5.1	Access	Roads blocked Other Obstructions		
	Report Logged? (initials) it Logged OF 03 CO	PS Desk Logged Doc Unit Completed DES104 COES103		Rollup

3. Collecting the data... filling out the form

COES 105 Situation Status / PSA Form Rev 080519 For use by Organized Neighborhoods, CARES Preliminary Safety Assessment	Control No:	
Assessment Date/time: 2/6/12 8:45am	Street: Between: and:	
Performed by: Jim o kn6pe	Map Grid (Chamber Map): P20	
Command Post Location:	Number of Units Surveyed: 24	

### Header

Date/Time	When you performed the PSA	
Performed by:	This is you	
Command Post Location:	Use if you are part of an Ark deployment. Otherwise, leave blank	
Street: Between and:	Use if you are part of an Ark deployment. Otherwise, leave blank	
Map Grid:	Use Santa Clara County map for the grid where you are operating	
Number of units.	This is the survey size of the houses you checked.	
Control No:	Use if you are part of an Ark deployment. Otherwise, leave blank	



3. Collecting the data... Category refresher

- Simple Triage and Rapid Treatment – START
- RPM...
  - Respiration
  - Profusion
  - Mental status

Ref	Category	Subcategory
1.1	Injuries, Minor	Able to walk away from the incident
1.2	Injuries, Delayed	Regular breathing, and Capillary refill <2 sec, and
		Answers questions, responds to commands
1.3	Injuries, Immediate	Rapid Breathing >30/min, or capillary refill >2 sec, or Confused, disoriented
		OR TRAPPED
1.4	Injuries, Presumed Dead	Unconscious, no respiration

3. Collecting the data... Category refresher

## Damage Assessment

- Light damage
- Moderate damage
- Heavy damage

2.1	Structure, Light Damage	<ul><li>Superficial Damage</li><li>Broken Windows</li><li>Cracked or fallen plaster</li><li>Main damage is to contents</li></ul>
2.2	Structure, Moderate Damage	<ul> <li>Large amount of cracking on exterior</li> <li>Small cracks around doors and foundations</li> <li>No outward sign of structural damage</li> </ul>
2.3	Structure, Heavy Damage	<ul><li>Partial or full collapse</li><li>Building is off foundation</li><li>Structural damage to the building</li></ul>



3. Collecting the data... Category refresher

### Fire, Hazards, Access

- What you see
- What you hear
- What you smell

3.1	Fire	Fire, Any situation, note if extinguished
4.1	Hazards	Gas Leaks
4.2	Hazards	Sewer Leaks
4.3	Hazards	Water Main Breaks
4.4	Hazards	Electrical Power, Lines Down. Power in the neighborhood?
5.1	Access	Roads blocked Other Obstructions

## 3. Collecting the data... filling out the form

Ref	Category	Subcategory	Count	Notes/Addresses (use back of page if necessary)	
1.1	Injuries, Minor	Able to walk away from the incident	THH 1	// 	8
1.2	Injuries, Delayed	Regular breathing, and Capillary refill <2 sec, and Answers questions, responds to commands		Address:	0
1.3	Injuries, Immediate	Rapid Breathing > 30/min, or capillary refill > 2 sec, or Confused, disoriented OR TRAPPED	///	Address: 541 Woodhill court 2671 Pinebrook Ct 965 Stelling Road	3
1.4	Injuries, Presumed Dead	Unconscious, no respiration		Address:	0
2.1	Structure, Light Damage	Superficial Damage     Broken Windows     Cracked or fallen plaster     Main damage is to contents	<i>++++ +</i>	Ш I	11

#### **Main Section**

The Count	Indicate the number of encounters that meet this criteria
Notes/Addresses	For Life-threatening or property-threatening, list the addresses

Note: When done, total up each block and write the number "somewhere" for easy reporting.



## 3. Collecting the data... filling out the form

		the neighborhood:		
5.1	Access	Roads blocked		
		Other Obstructions		
Statu	Status Report Logged? (initials)			
Doc	Init Logged	OPS Deak Logged	Doc Unit Completed	Rollup
COE	3103	COES104	COES103	

#### **Footer**

Status Report Logged?	Use if you are part of an Ark deployment. Otherwise, leave blank.
Roll-up	Use if you are part of an Ark deployment. Otherwise, leave blank

## 4. Prepare your Message

- Message ID -- Assigned by the Net Control Operator
- **Precedence** -- determines the urgency of the message (Emergency, Urgent, Routine, Health & Welfare)
- 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 If omitted, "PSA"
- The Message -- PSA Report... numbers only
   if you have Emergency Traffic... nature and
   location



# **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 PSA report (ROUTINE) when called.

		tatus / PSA Form Neighborhoods, CARES Preliminary Safety Assessme	CUP-13-06T Control No:	
	sment Date/time:		Street: Northforde, Northwind	
1/	12/13	0850	Between: and:	
Performed by: Cascore KJ6WBF			Map Grid (Chamber Map): Z - 2 2	
Comm	and Post Location	:	Number of Units Surveyed: 28	
Ref	Category	Subcategory	Count	Notes/Addresses (use back of page if necessary)
1.1	Injuries, Minor	Able to walk away from the incident	14	
1.2	Injuries, Delayed	Regular breathing, and Capillary refill <2 sec, and Answers questions, responds to commands	Q	Address:
1.3	Injuries, Immediate	Rapid Breathing >30/min, or capillary refill >2 sec, or Confused, disoriented OR TRAPPED	Ø	Address:
1.4	Injuries, Presumed Dead	Unconscious, no respiration	0	Address:
2.1	Structure, Light Damage	Superficial Damage Broken Windows Cracked or fallen plaster Main damage is to contents	15	
2.2	Structure, Moderate Damage	Large amount of cracking on exterior     Small cracks around doors and foundations     No outward sign of structural damage	13	Address:
2.3	Structure, Heavy Damage	Partial or full collapse     Building is off foundation     Structural damage to the building	Ø	Address:
3.1	Fire	Fire, Any situation, note if extinguished	Ø	Address:
4.1	Hazards	Gas Leaks	Ø	Address:
4.2	Hazards	Sewer Leaks	Ø	Address:
4.3	Hazards	Water Main Breaks	Ø	Address:
4.4	Hazards	Electrical Power, Lines Down. Power in the neighborhood?	2	Northfords entrang off of Blaney av.
5.1	Access	Roads blocked Other Obstructions	0	
		S Desk Logged Doc Unit Completed		Rollup

# Message Handling

## What it sounds like - Sending a PSA Report

KJ6WBF: "Net Control, this is KJ6WBF with PSA Traffic for the EOC"

NCS: KJ6WBF acknowledged. EOC, are you ready to copy PSA traffic?

**EOC**: "EOC is ready"

NCS: KJ6WBF, your message number is 30. Send your traffic to the EOC.

*KJ6WBF*: "EOC, This is <u>KJ6WBF</u> with <u>PSA Traffic</u>, message #30. <u>Break</u>"

EOC: "OK, Continue"

KJ6WBF: "Map coordinate is 'Lima 22'. Number of houses surveyed is 28. Break"

EOC: "OK, Continue"

KJ6WBF: Section 1 is 14, 0, 0, 0. <u>Break</u>"

EOC: "OK, Continue"

KJ6WBF: "Section 2 is 15, 13, 0. Break"

EOC: "OK, Continue"

KJ6WBF: "Section 3 is 0. Break"

EOC: "OK, Continue"

KJ6WBF: "Section 4 is 0, 0, 0, 2. Break"

EOC: "OK, Continue"

KJ6WBF: "Section 5 is 0. End of Message. This is KJ6WBF"

EOC: "Acknowledged. This is EOC, K6FJC back to net."

NCS: This is KD6TQJ, Net Control for the Cupertino Emergency Net.

Other stations with any traffic, please identify now.

### COES 106 Situation Status - PSA Rollup/Tracking Form

Rew	080519	For use by	Organized	Neighborhoods.	. Cupertino Arks,	CARES ECC

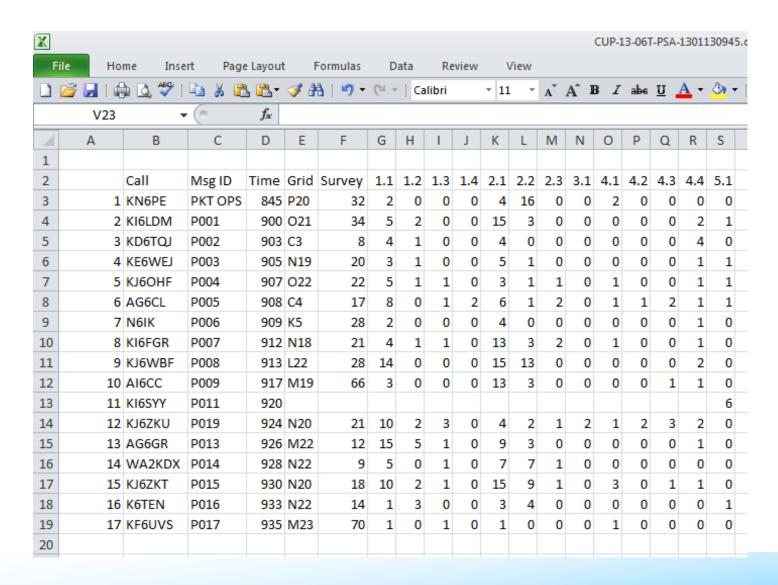
Received by:

Rev (	Rev 080519 For use by Organized Neighborhoods, Cupertino Arks, CARES EOC												
	Closed Date/Time:												
	Submitted by: Call Sign:	kd6qpp	kn6pe	kj6wbf	kg6teu								
	Report Control No: Message ID:	28	29	<i>30</i>	<i>31</i>	Wha	What happens at the ECC2						
	Time Received:	0912	0915	0918	0920	VVIIC	What happens at the EOC?						
	Map Grid:	M18	P20	L22	0 19	1.Ne	1.Net Control Operator directs PSA						
	Number of homes surveyed:	12	24	28	25		fic to th	•					
Ref	Category												
1.1	Injuries, Minor	3	8	14	10	2.PS	A Reco	rder red	ceives a	and rec	ords		
1.2	Injuries, Delayed	2	0	0	2	the	PSA re	eports.					
1.3	Injuries, Immediate OR TRAPPED	1	3	0	1	3 Ro	lled un	renorts	are de	livered	to		
1.4	Injuries, Presumed Dead	0	0	0	0		3. Rolled up reports are delivered to DOC (CCC Liaison) in the EOC.						
2.1	Structure, Light Damage	<i>5</i>	11	15	<i>15</i>								
2.2	Structure, Moderate Damage	1	<i>5</i>	13	9		4. The DOC helps the city EOC staff assess if there are particular portions of the city worse off than others.						
2.3	Structure, Heavy Damage	0	1	0	1								
3.1	Fire, Any situation	0	1	0	0	OI t	TIC CITY	WOISE	Jii tiiaii				
4.1	Gas Leaks	3	1	0	3								
4.2	Sewer Leaks	1	0	0	0								
4.3	Water Main Breaks	1	3	0	1								
4.4	Electrical Power,	0	1	2	1								
5.1	Roads blocked	0	5	0	0								
Info	Info passed to City by: Date/Time												

02/05/64 PSA. DRILL, -COP -05-02

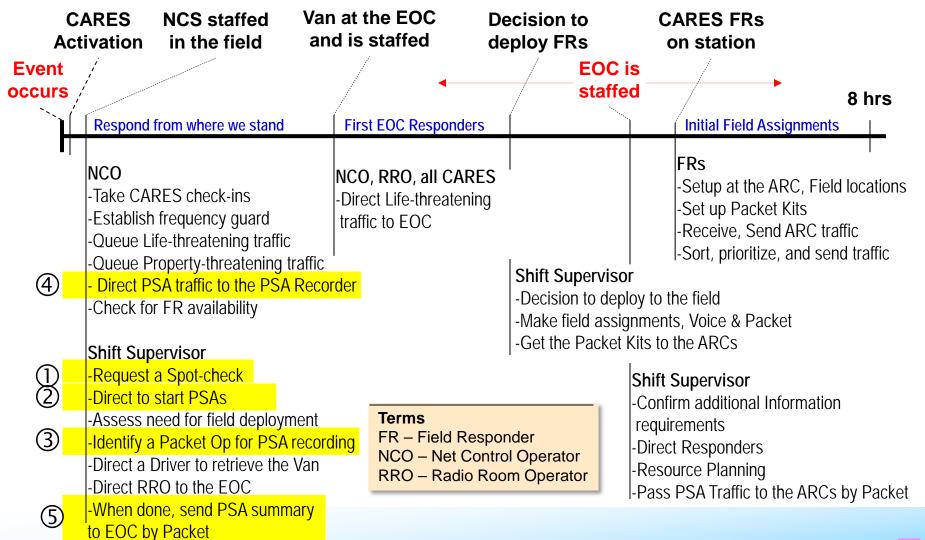
	下心 Preliminary Safet	of 43 y Assessm	6945 nent Form	OTY6 EOC	949	0951	1000	8001	PSA. S	DRILL -	
	Call Sign:	KFLMCG	不といって	りろよろ	MAGROX	KULTELL	NESTX	KGLOGA	Kohype		
	Time:	৩৭৭।	4460	७९५5	0947	0950	०१६९	1006			
	Message ID:	001	003	004	007	900	009	011	,		
	MSgType:	PSA	PIA	929	PSA	ALG	PSA	PSA	PSA		
	Map Coord:	FY	56	ΕĴ	上子	G-6	Dy marca uis	F6_	B3		
	Survey:	15	42	9	5 Ø	25	35	114	16		
Ref	Category										
1.1	Injuries, Minor	0	4	0	3	10	6	15	0		
1.2	Injuries, Delayed	Ø	1	5	0	2	0	3	(		
1.3	Injuries, Immediate	3	0	O.		l i	0	0	0		
1.4	Injuries, Presumed Dead	ø	0	۵.	0	0	0	0	0		
2.1	Structure, Light Damage	4	45	5	3	15	17	25	Ø		
2.2	Structure, Moderate Damage	Ø	2	0	_ <b>2</b> _	9	3		7.8%		
2.3	Structure, Heavy Damage	\$	8	36	2	1	0	0	0		
3.1	Fire, Any situation	Ø	0	0	1	0	0	0	0		
322	Gas Leaks	Ø	2	1	. 0	3	0	0	න		
333	Sewer Leaks	Ø	0	0	0	0	٥	0	0		•
3.4.3	Water Main Breaks	)	2	1	2	1	l	0	J		
3.5	Electrical Power,	2	NO	1	0	1	2	1 7	NO		
島.1	Roads blocked	Ø	ø	\$	1	ì	0	Ø	Mo	***	

# **PSA** Recording – Spreadsheet by packet



# **Initial Response Ops**

### **PSA** activities



### PSA Drill

When: Saturday, 18-Jan, 8:00am to 9:30am

Where: Operate from your home location

Who: All CARES members, a SS, NCO, RRO, & PSA Recorder

 What:

 1. Develop a damage scenario that you think would be typical of your neighborhood.

How: 1. Download the PSA Form

2. Net is called at 8:00a, take check-ins

3. Simulate or actually go through your assessment process; Use the PSA data collection form.

4. Over the next hour, CARES members send PSA messages based on precedence

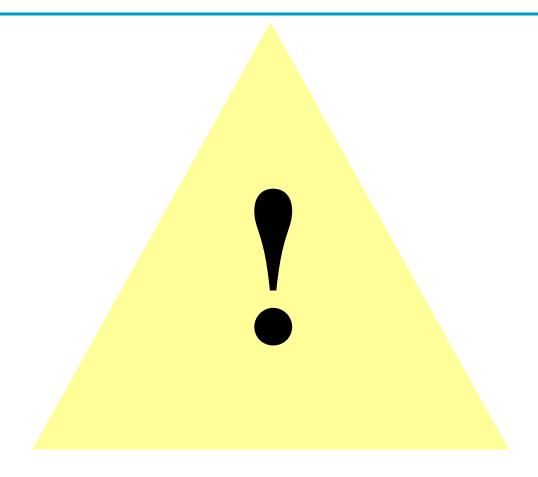
5. On-air critique at about 9:00am

6. Secure the net



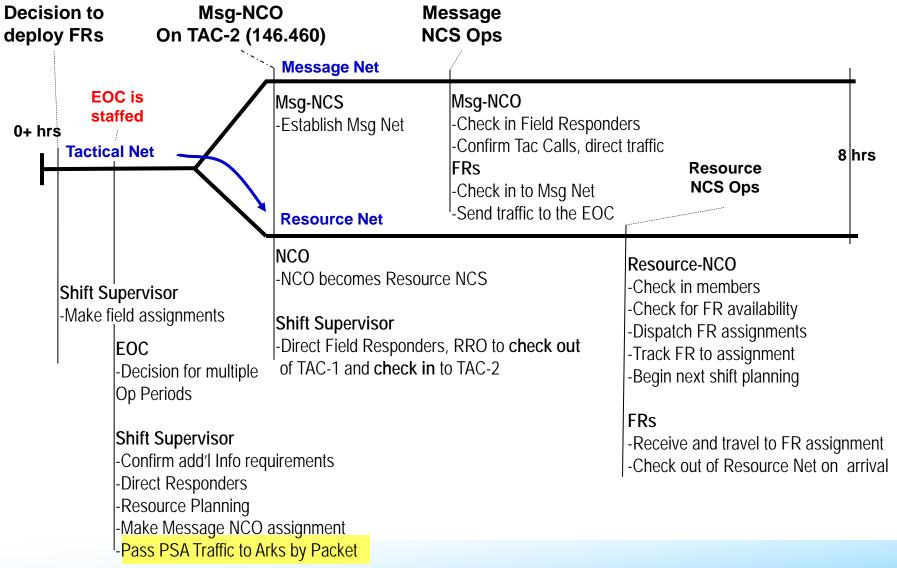
# Thank you

Any Questions?



# **Extended Response Ops**

Tactical, Message & Resource Net



SAT. 9-llam

Cupertino Amateur Radio Emergency Service
PART 6 Forms

1 Stround Summery
2 wd round of a skied give particulars
have add resser
ready of a skied

Pass Counts 1.1 \$ 1.2 \$ 1.3 2

Preliminary Safety Assessment Form - Field

: Go thru lohole list

SAT. DAIL

		Assessment Date/time: Feb 5, 2005 9	am	Neighborhood/Street: Rose Garden Ln			
		Performed by: Nancy Gabriel  K66T	Map Coordinates: MAP GRID 66				
		K66T	Number of Units Surveyed: 25				
Ref	Category	Subcategory	Count	Notes			
1.1	Injuries, Minor	Able to walk away from the incident	10	Say all 1.			
1.2	Injuries, Delayed	Regular breathing, and Capillary refill <2 sec, and Answers questions, responds to commands	2	MSG Byr. O			
1.3	Injuries, Immediate	Rapid Breathing >30/min, or capillary refill >2 sec, or Confused, disoriented	/	Leg gash heavy bleeding CERT he			
1.4	Injuries, Presumed Dead	Unconscious, no respiration	Ø	PAUSE = Break =			
2.1	Structure, Light Damage	Superficial Damage     Broken Windows     Cracked or fallen plaster     Main damage is to contents	15	Say all 2'-			
2.2	Structure, Moderate Damage	Large amount of cracking on exterior     Small cracks around doors and foundations     No outward sign of structural damage	9	(3 instales)			
2.3	Structure, Heavy Damage	Partial or full collapse     Building is off foundation     Structural damage to the building		Two story 3535) Rose Gardenla			
3.1	Hazards	Fire, Any situation	Ø	Say all 3, -			
( <del>1</del> )	Hazards	Gas Leaks	3				
4.0	Hazards	Sewer Leaks	Ø				
4.3	Hazards	Water Main Breaks	1	Corner / Intersection Stelling + Waterford			
48.4	Hazards	Electrical Power, Lines Down. Power in the neighborhood?	1	FR mark =			
<b>4</b> 51	Access	Roads blocked Other Obstructions	7	sy 5 Power Pole Rose Garda Lu + Waterfe			