

2018 Earthquake!

Exercise Review
for the
Cupertino Disaster Council

February 21, 2019
Jim Oberhofer

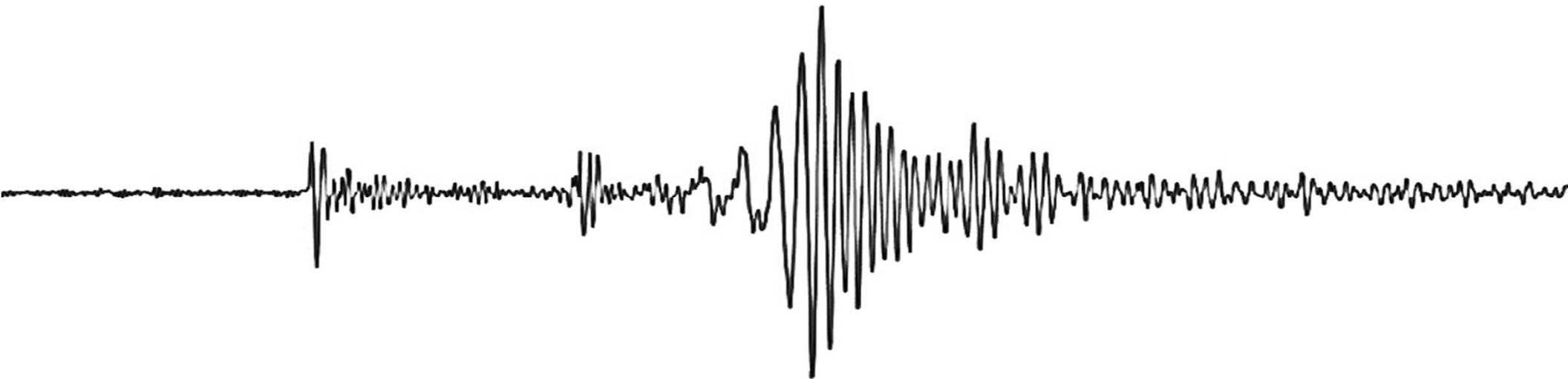


2018 Earthquake!

***** THIS IS DRILL TRAFFIC *****

The Bay Area was rocked by a 7.9 earthquake on the San Andreas Fault. Wide-spread damage is reported. Power and communications are out throughout the area.

Courtesy of the U.S. Geological Survey (USGS), 2018 Haywired Scenario



Cupertino ARES/RACES



2018 Earthquake Exercise

December 15, 2018

Objectives

1. Exercise radio operations on all designated nets.
2. Exercise the ARK activation process to Activation Level 2.
3. Exercise joint CARES and CERT team deployments.
4. Test the End to End Alternate 911 communications process.
5. Exercise an activation of the Cupertino Alternate EOC.
6. Test resource management over two operational periods.
7. Test initial Demob plan with a focus on forms completeness.

Quick Look... by the numbers

164	Volunteer hours
108	Packet messages passed
79	Alternate 911 digital (packet) messages passed
37	Voice messages passed
29	ICS-214 Unit Logs submitted
25	CARES Members participated
22	ISA assets reviewed, 1 st shift
18	Demob sign-offs
15	ICS 309 Comm Logs submitted
14	CERT members participated
14	Evaluations turned in
12	Field Teams deployed over 2 shifts
5	ARKs activated
5	Joint CARES/CERT teams deployed for Infrastructure Assessments
2	Shifts

Summary of findings

What worked

1. Good teamwork: CARES & CERT
2. Activated 5 of 6 ARK
3. Digital messaging
4. City-wide radio coverage from the Alternate EOC

Needs improvement

1. Resource management
2. Alternate EOC infrastructure

After Action Report Earthquake 2018



Cupertino
ARES/RACES

1. Overview

Description: Infrastructure Safety Assessment Drill
Event Date: 15-Dec-2018
Report Date: 15-Jan-2019
CARES Event: CUP-18-34T
RACES Event: CUP-18-34T
Control: Cupertino ARES/RACES
Report Revision: 1.2, FINAL
Submitted by: Jim Oberhofer KN6PE

Requirements for Reporting¹

Completing an After-Action Report is part of the required SEMS reporting process. The Emergency Services Act, Section 8607 (f) mandates that the Office of Emergency Services (OES) in cooperation with involved state and local agencies complete an After-Action Report within 120 days after each declared disaster. Section 2450 (a) of the SEMS Regulations states that, "Any city, city and county, or county declaring a local emergency for which the governor proclaims a state of emergency, and any state agency responding to that emergency shall complete and transmit an after-action report to OES within ninety (90) days of the close of the incident period as specified in the California Code of Regulations, Title 19, s2900(q)."

CARES will follow this requirement for reporting the results and recommendations for this Training Event.

i. Introduction and Background

Terms

AAR²: After Action Report: A document intended to capture observations of an exercise and make recommendations for post-exercise improvements. The final AAR and Improvement Plan (IP) are printed and distributed jointly as a single AAR/IP following an exercise.

AAR/IP: Improvement Plan; Identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion.

Alt911cts: Software App, Alternate 911 Call Taking System; integrates with Outpost PMM.

¹ <http://www.caloes.ca.gov/cal-oes-divisions/planning-preparedness/after-action-corrective-action-reporting>
<http://temp.caloes.ca.gov/PlanningPreparednessSite/Documents/01%202450.pdf>

² <https://training.fema.gov/programs/emischool/el361/toolkit/glossary.htm>

Obj #1: Exercise Radio Operations on all nets

a.k.a.: “support the City’s Common Operating Picture”

1. Collect *Modified Mercalli Intensity Scale* (Mike-Mike) Reports
 - **RESULTS:** worked well (first time)
 - **PLAN:** Look at incorporating Mike-Mike Reports into the initial check-in to generate an even more immediate impact assessment
2. Test the Field PSA Data Recording Process
 - **RESULTS:** worked well
 - **PLAN:** Need to develop this as a fundamental packet capability across all CARES packet ops
3. Operate Message NCS from Comm 469 using an ARP Kit
 - **RESULTS:** worked well
 - **PLAN:** Look at power mgmt; On-going message passing practice



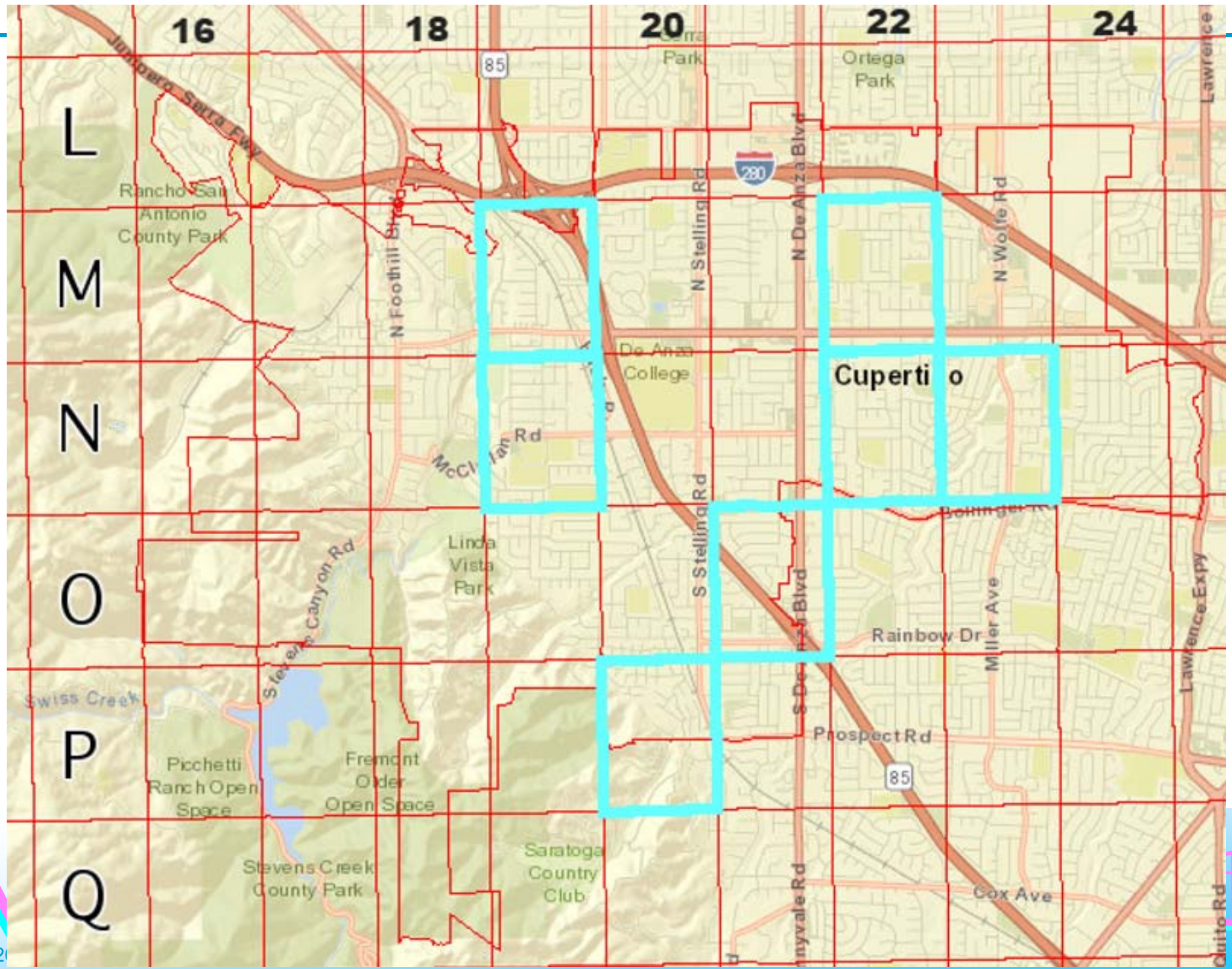
Incoming field observation data

Preliminary Safety Assessment roll-up

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1						Injuries:				Structure Damage:			Fires:	Hazards:				Blockages MMI:		
2	Submitter	Msg#	Time	Grid	Structures	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	4.1	4.2	4.3	4.4	5.1	6	
3	N6ESC	3	746	M19	24	8	2	0	0	7	4	2	1	0	0	0	1	0	5	
4	N6ESL	4	750	M19	18	7	4	0	0	2	4	0	0	0	0	1	2	0	4	
5	AI6CC	10	812	M19	21	3	0	0	0	8	3	1	0	0	0	1	0	0	6	
6					63															
7	N6IK	7	800	M22	23	2	0	0	0	2	0	0	1	0	1	0	0	0	1	
8	KJ6LLY	9	807	M22	18	5	1	0	0	8	6	0	0	0	0	2	0	0	3	
9	AG6GR	11	917	M22	10	0	9	1	1	8	1	0	0	0	0	0	1	0	-	
10					51															
11	KK6FPI	1	741	N19	60	3	1	1	0	6	8	5	0	1	2	3	0	5	6	
12	KM6UZZ	5	754	N22	8	6	2	0	8	0	0	0	0	0	0	0	0	0	3	
13	K6WGY	8	905	N23	15	2	4	5	0	1	3	0	0	3	5	1	1	3	1	
14	KI6LDM	2	744	O21	60	3	0	0	0	34	2	1	1	1	0	0	0	0	7	
15	KN6PE	6	756	P20	62	4	2	1	0	7	8	4	0	3	0	3	1	2	7	
16																				
17																				
18		Using the existing map grids from CNT.																		
19		Total Grids in City: ~39.			Number Surveyed: 7.															
20		Grids Surveyed:		Reports:	Structures	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	4.1	4.2	4.3	4.4	5.1	6	
21			M19	3	63	18	6	0	0	17	11	3	1	0	0	2	3	0	5/4/6	
22			M22	3	51	7	10	1	1	18	7	0	1	0	1	2	1	0	1/3/-	
23			N19	1	60	3	1	1	0	6	8	5	0	1	2	3	0	5	6	
24			N22	1	8	6	2	0	8	0	0	0	0	0	0	0	0	0	3	
25			N23	1	15	2	4	5	0	1	3	0	0	3	5	1	1	3	1	
26			O21	1	60	3	0	0	0	34	2	1	1	1	0	0	0	0	7	
27			P20	1	62	4	2	1	0	7	8	4	0	3	0	3	1	2	7	
28				11	319	43	25	8	9	83	39	13	3	8	8	11	6	10	N/A	
29																				

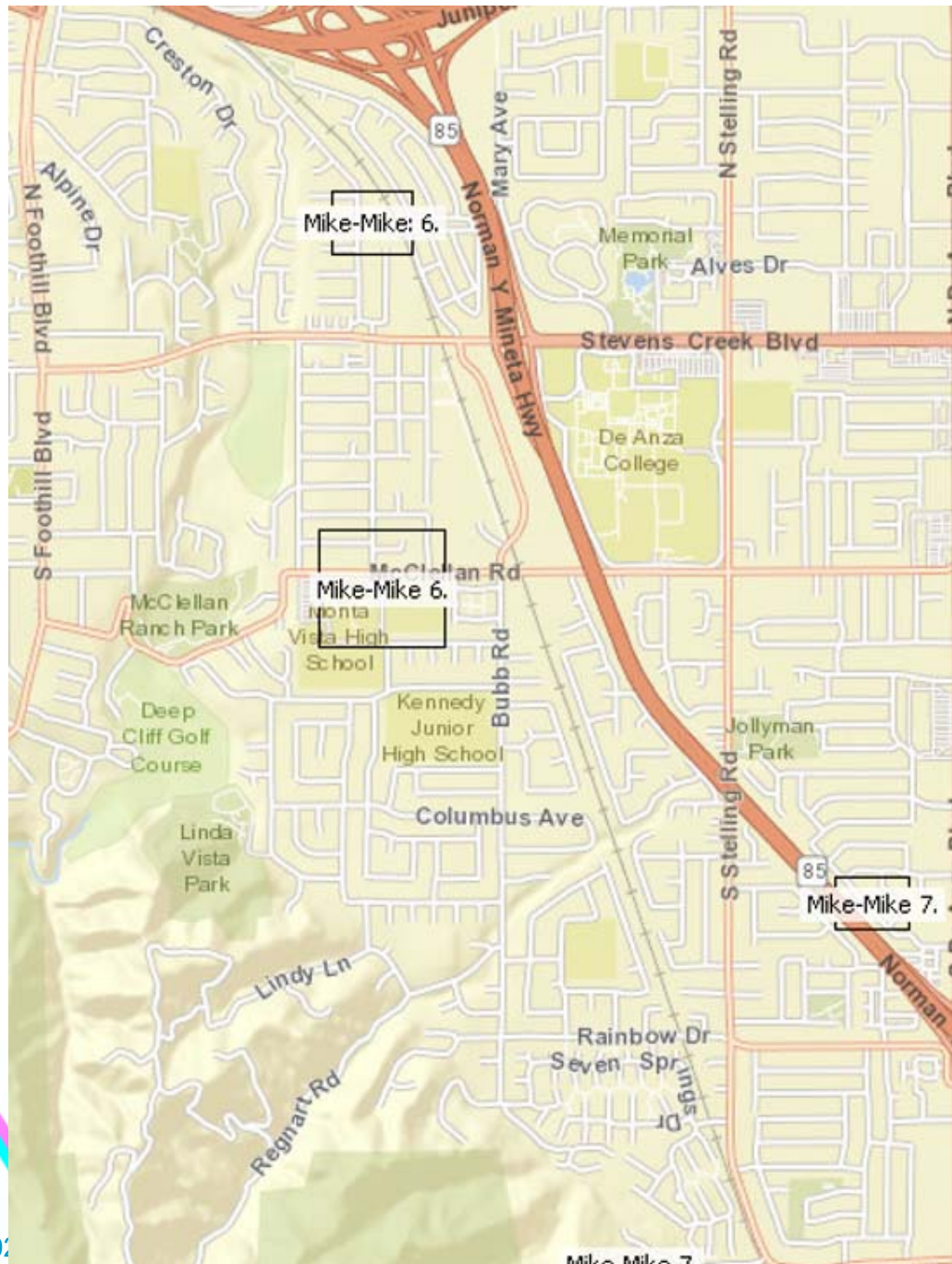


Mapping Cupertino



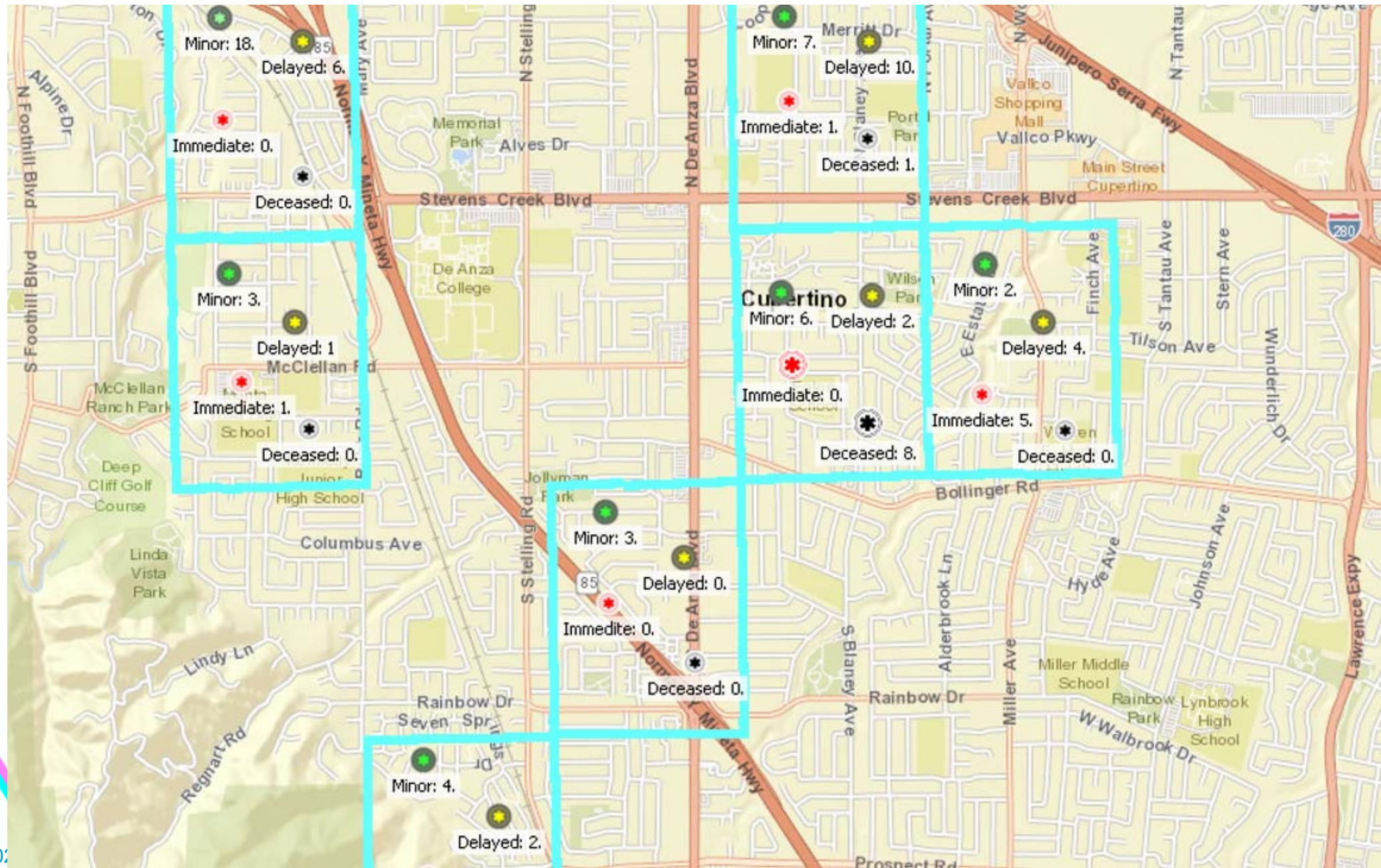
Mike-Mike report rollup

(Modified Mercalli Intensity scale, a seismic intensity scale)



8 Modified Mercalli Intensity Scale (MMI)		
MMI value	Short description	Full description
1	Not mapped	Not felt.
2	Not mapped	Felt by people sitting or on upper floors of buildings.
3	Not mapped	Felt by almost all indoors. Hanging objects swing. Vibration like passing of light trucks. May not be recognized as an earthquake.
4	Not mapped	Vibration felt like passing of heavy trucks. Stopped cars rock. Hanging objects swing. Windows, dishes, doors rattle. Glasses clink. In the upper range of IV, wooden walls and frames creak.
5	Light	Felt outdoors. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing. Pictures move. Pendulum clocks stop.
6	Moderate	Felt by all. People walk unsteadily. Many frightened. Windows crack. Dishes, glassware, knickknacks, and books fall off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster, adobe buildings, and some poorly built masonry buildings cracked. Trees and bushes shake visibly.
7	Strong	Difficult to stand or walk. Noticed by drivers of cars. Furniture broken. Damage to poorly built masonry buildings. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices, unbraced parapets and porches. Some cracks in better masonry buildings. Waves on ponds.
8	Very strong	Steering of cars affected. Extensive damage to unreinforced masonry buildings, including partial collapse. Fall of some masonry walls. Twisting, falling of chimneys and monuments. Wood-frame houses moved on foundations if not bolted; loose partition walls thrown out. Tree branches broken.
9	Violent	General panic. Damage to masonry buildings ranges from

Injury report roll-up



Obj #2: Exercise the ARK Activation Process to Level 2

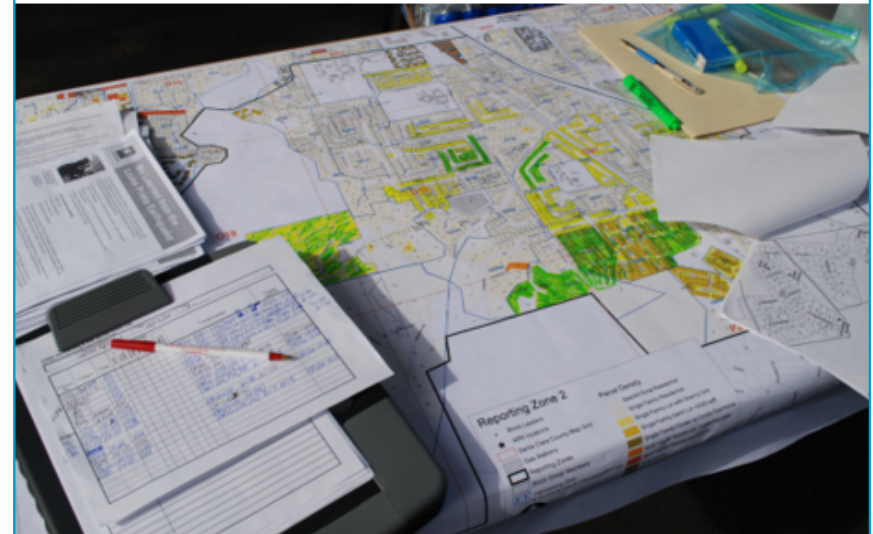
1. ARK activation Process to Level 2

- **RESULTS:** worked well
- **PLAN:** Get a copy of the ARK Activation Handbook out to all CCC members

Cupertino ARK Activation Handbook

Cupertino Citizen Corps

December 2018



CUPERTINO
citizen★corps



Obj #4: Test the E2E Alt911 call taking system

1. Pass Alternate 911 messages from field

- **RESULTS:** worked well; feedback was very positive
- **PLAN:** compile, implement software enhancement list; define the training for dealing with community members looking for help

2. Staff County Comm

- **RESULTS:** Not Tested; equipment and access resolution pending
- **PLAN:** Work with County Comm and County RACES to resolve



Taking a 911 message in the field...

Alt911 - New report

New Report

Event ID: CVC18304.116 Delete Save Submit Close

Incident Summary

What are you reporting?

MED FIRE LAW LGOV

L/U Location, Address:

City:

Other Location Details

Reporting Person Details

L/U Name:

Address:

Phone:

Last seen:

Details:

MEDICAL FIRE LAW LOCAL GOV

Medical

Age:

Gender:

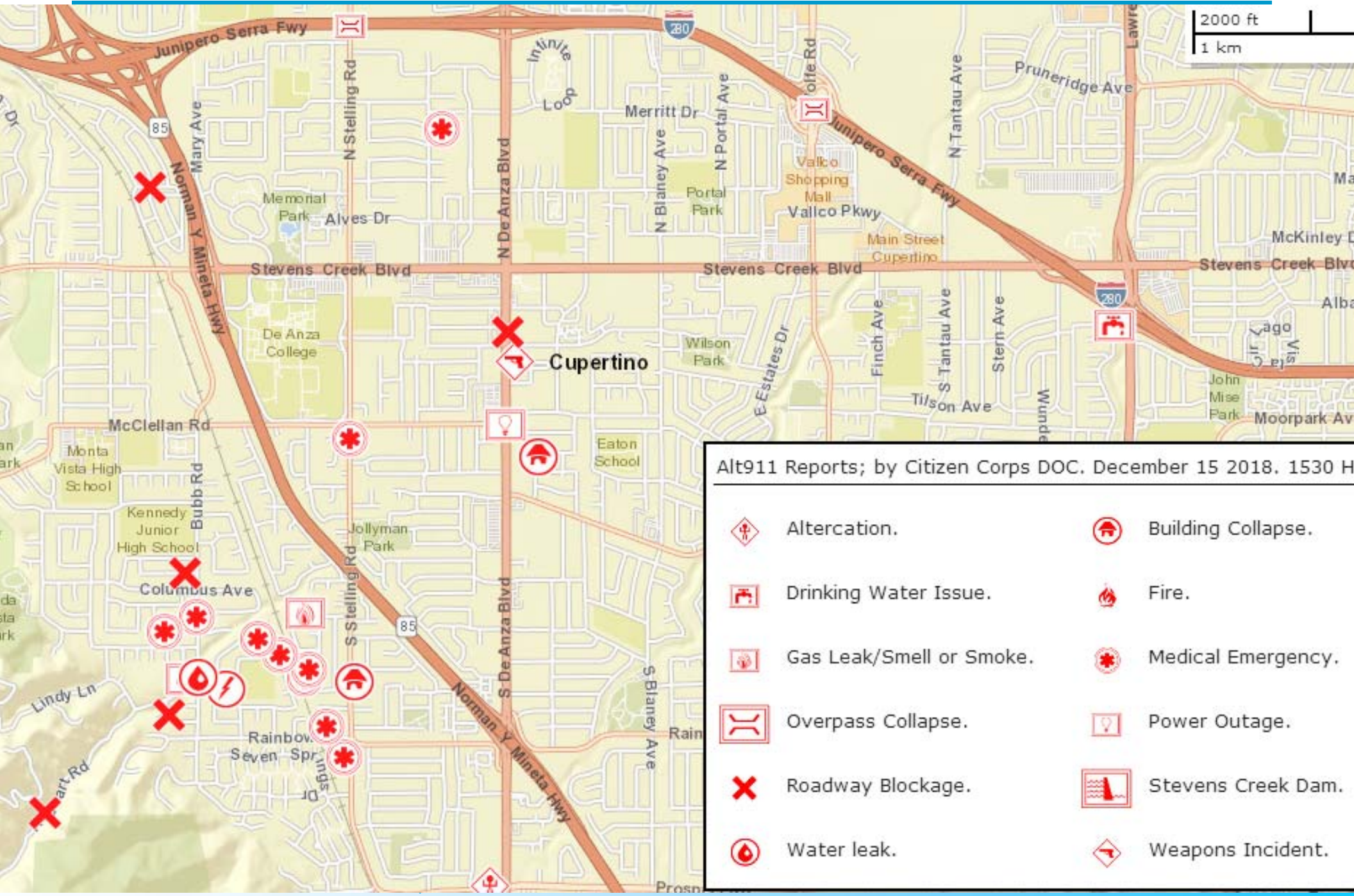
Conscious? ☐ No ☒ Yes

Breathing? ☐ No ☒ Yes

... and delivering
it to County Comm

Type: MED	Location: 10185 N Stelling Road, Cupertino		Unit:
LAW	Pri:	St:	Map:
	Addr Addl: Quinlan Rec Center		
MED	CD:	Zone:	Rp Phone: 408-435-5411
	EMD:	MPDS:	
FIRE	RP: Benny Goodman		
	LVL:	CD:	Rp Addr: Same Address
	Run Cd:	Sta:	Crit:
LG	F-Jur:	RP Addr:	
	LVL:	By:	
	Veh:	Lic:	Is:
C22C33		Details:	
At: By:		Fell Out Of A Tree -- youngster was playing in a tree, lost his footing. His name is Jeffery -- AGE: 10, C+ B+	
C4965		Last Seen: 15 Minutes -- Call Loc: Cupertino Civic Center	
At: By:			
10-22			
At: By:			
Dryrun:			
At: Code:			
Date & TOC	Dev / DSN:	Backed in By:	Event #: CVC18304.116
181031 1615	KN6PE		
	Mutaid RZ:	Freq Assign:	

Obj #4: Test the E2E Alt911 call taking system



Obj #5: Exercise from the Alternate EOC

1. Operate from Alternate EOC

- **RESULTS:** For CARES, Worked well.
For the City, Needs Work; EOC infrastructure is not in place
- **PLAN:** City OES and Staff to outfit the Alternate EOC as an operational location



For more information...

After Action Report, other event docs

www.cupertinoares.org > Exercises & Events

Cupertino ARES/RACES
Providing emergency and public service communications for the City of Cupertino, California

Welcome!
Home
About us
Operations
Training
Exercises & Events
Docs & References
Resources
Projects
Cupertino Citizen

Exercises
Introduction | Activations | Exercises | Public Service Events | All Events

CUP-18-34T, 2018 Earthquake Comm Exercise
15 Dec 2018. Citizen Corps Exercise: open ARKS to Activation Level 2; staff 2 Op Periods, Alt911 Message passing to County Comm.
Forms Overview | ARK Overview | Intro to Alt911 | 911 Message Form | Drill Prep | Exercise Plan | Incident Action Plan | After Action Report |

CUP-18-27T, 4th of July Event Support
4 Jul 2018. CARES provides volunteer coordination and communications during the event with the 4th of July Fireworks event.

Up
7 F
This
on
Ear
Qu
9:0
9 F
Em
Sat
12:
Cup
De

Cupertino ARES/RACES

Thank you

Any Questions?

