

After-Action Report

2004 Simulated Emergency Test



Cupertino
ARES/RACES

1. Overview

Description: 2004 SET
Event Date: 13-Nov-04
Report Date: 15-Dec-04
CARES Event: CUP-04-13T
RACES Event: CUP-04-13T
Control: City of Cupertino OES
Report Revision: 1.1
Submitted By: Jim Oberhofer/CARES

Requirements for Reporting

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, section 2900(j)."

Additionally, CARES will use the After Action Report format for documenting training drills and exercises.

1. Introduction and Background

The Cupertino Amateur Radio Emergency Service (CARES) and Cupertino's Community Emergency Response Team (CERT), in cooperation with the City of Cupertino OES, participated in a joint exercise based on an earthquake scenario that affected the City of Cupertino.

The purpose of this exercise was to (i) test the ability of the CARES and CERT organizations to provide a seamless and timely snapshot of the status of the city following a major disaster, and (ii) continue to acquire data about Cupertino Critical Facilities (CCF100).

On 13-Nov, the City initiated a Training Activation under the designation CUP-04-13T.

This report covers the activities undertaken by responding volunteers in support of this event.

2. Type/location of Event / Drill / Exercise

Event Type: City of Cupertino Training Activation
Event Identifier: CUP-04-13T
Event Name: 2004 Simulated Emergency Test
Location: City of Cupertino

3. Description of Event / Drill / Exercise

CARES has traditionally held an annual Simulated Emergency Test (SET) as part of its on-going training activities. These exercises are full field deployments of CARES resources to support a specific disaster response scenario. The exercise held in 2004 was primarily a Communications exercise.

This year, the City of Cupertino OES requested CARES to broaden the scope of its exercise to test a concept that would better integrate CERT resources into the overall emergency response. Both CARES and CERT members would be in the field generating simulated safety assessment traffic. CARES would participate at the EOC to receive simulated traffic, log situation status, and dispatch CARES members to critical facilities.

CARES resources were also dispatched to 5 locations throughout the City as part of the CARES general emergency deployment scenario:

1. Cupertino Fire Station
2. Monta Vista Fire Station
3. Seven Springs Fire Station
4. Jollyman Park
5. Cupertino High School

Cupertino OES performed a limited EOC activation to collect incoming emergency message traffic and assess their process for correlating this information.

CARES and CERT members reported fictitious damage reports using both FRS and Amateur radio, or by face-to-face communications. CERT members used FRS radios on channel 5/tone 5, operating in a citywide open net. CARES members, who had FRS capability, monitored this FRS net. Any CARES members hearing an FRS report were requested to acknowledge the report, and relay the report to the EOC. Because of limited range of FRS radios, the need for relays was assumed.

Event resources were provided from the following organizations:

1. Cupertino Office of Emergency Services: Responsible for simulating the EOC staff and receive field reports for analysis and correlation.
2. Cupertino ARES/RACES: Responsible for staffing the City's EOC radio room, emergency net control position, and field and rover communications resources. Twenty CARES members participated.
3. Cupertino CERT: Responsible for creating and delivering simulated disaster traffic to the EOC, either by direct interaction with CARES, FRS communications with CARES, or drop off of City Scan forms to the EOC. Thirty-four CERT members participated in this event.

4. Chronological Summary of Event / Drill / Exercise

All events took place on Saturday, 13-Nov-04. All times listed are in local time.

Time	Description, Note, Comment
0815	Cupertino EOC. Vince K6TEN, CARES Engineer in Charge, arrived and opened the EOC Radio Room. The equipment check was completed successfully.
0830	EOC Staff begins to arrive and sign in.
0847	Jim KN6PE requested permission from Marsha Hovey, Cupertino Director of OES, to activate CARES and CERT for the drill. Permission was granted under activation ID: CUP-04-13T.
0900	EOC Staff assignments are complete. The following positions were assigned. Jim KN6PE CARES Shift Supervisor Allan KD6QPP EOC Radio Room Operator Bill KD6TQJ Net Control Operator Ken KR6CO EOC Staff Marsha KG6CYV EOC Staff
0930	The CARES emergency net was activated. Check-ins were taken with 14 CARES members identifying themselves for field or neighborhood assignment.
1000	The CERT Phone Tree was activated
1134	The Drill was secured.
1215	The EOC was secured.

5. Response at SEMS Levels (as appropriate):

Include a summary, conclusions, the field response, and other local, operational area, regional, state or federal response.

Not appropriate for this event.

6. Interacting Systems, Agencies, and Programs:

Include mutual aid systems (law enforcement, fire/rescue, medical, etc.); cooperating entities (utilities, American Red Cross, Sheriffs Office, City Departments, etc.); telecommunications and media interactions.

County OES. No participation was required.

CERT. Thirty-four CERT members volunteered to participate in this drill with most originating status reports from the field.

Communications Systems. The primary Field-to-EOC radio channel was CARES TAC-1 (147.570s). Field Responders used CARES TAC-2 for logistics coordination.

FRS Channel 5/Tone 5 was identified as a City-wide FRS open net frequency. Most CERT members used FRS for local neighborhood coordination. Some CARES members who were given field assignments monitored the FRS channel. One CARES members reported direct FRS contacts and received a message.

7. Improvements, Conclusions, Recommendations:

As applicable, include a description of actions taken, assignments, associated costs or budget, timetable for completion or correction, and follow-up responsibility.

The following is a summary of the key Improvements, Conclusions, and Recommendations. See Appendix A for additional comments, detailed feedback, and other suggestions.

What worked?

- Good net control and discipline
- Assignments to fixed locations worked well
- The linkage between CERT and CARES showed the concept can work.

What needs improvement?Net Protocol:

- Did not initially check for availability of members for field assignments.
- Handoffs between Field Responders and EOC RRO were slow.

Staffing

- EOC staffing was insufficient to handle the volume of traffic as well as dispatch and manage the CCF100 activity. The result: CARES members were left standing by on channel after it was clear that it would be difficult to dispatch other teams.

Message Handling

- Too little "This is Drill Traffic" announcements, except by Net Control.
- Too much detail from a City Scan Report was passed (lists of addresses)
- Message pacing was occasionally too fast.

Recommendation

1. The volume of traffic surprised everyone in the EOC, including the EOC Staff who was tasked with correlating the data. Given the 600+ CERT members that Cupertino has in the community, it is plausible that this kind of information overload will happen during a real event. CARES Field Responders are in an excellent (and a difficult) position as the first filter for sorting through incoming data and applying judgment in terms of message priority and passing.

RECOMMENDATION: Provide CARES Field Responders with more structure and guidance to receive, process, prioritize, and transmit incoming messages for the EOC. City Scan Reports do not constitute 3rd party traffic.

2. It is unclear what information is required by the EOC to support an emergency response.

RECOMMENDATION: This is an issue of Information Management. Develop an understanding of what information is needed at different points during the response. Cupertino OES to establish and use these requirements to drive what information is requested from the field.

3. In general, the City Scan Form proved to be a useful tool for helping CERT members organize their information for passing to the EOC.

RECOMMENDATION: Further develop the City Scan Form and Process to support all points where the information touches (CERT, CARES, EOC). Reconcile this form with the CARES Preliminary Safety Assessment form currently used.

4. The volume of messages was overwhelming to the point that this level of message traffic stressed our current infrastructure and operational plans. Based on this scenario, it must be assumed that CARES will undertake multiple assignments simultaneously.

RECOMMENDATION: Cupertino OES to revisit the utilization of its people and assets. This includes:

- (i) Identify CARES members who have neighborhoods as their first priority (in progress, not currently applied).
- (ii) Identify high probability deployment sites (ARKs, Fire Stations, etc.).
- (iii) Identify CARES and CERT members' proximity to these sites (first responders).
- (iv) Develop scenarios and update SOP to address CARES and CERT first responses (1st 4 hours, 2nd 4 hours, 2nd 8 hours, etc.).
- (v) Structure drills to exercise these scenarios.
- (vi) Assess the Radio Room operations in light of supporting multiple simultaneous CARES assignments.

8. Training Needs

1. Orientation sessions on an updated Preliminary Safety Assessment procedure.
2. Regular joint exercises to further develop the City Scan Reporting Process (end to end).

9. Recovery Activities (as applicable)

Recovery Activities were limited to EOC shutdown.

10. References: Maps, charts, training materials, etc.

The following material was developed in support of this exercise.

- Nov 13 ExPlan
- Nov 13 Cert Instructions
- School Park List R3
- CERT Telephone Tree
- Cupertino City Scan Form

Appendix A – Feedback Comments

The following feedback was received from CARES members. The comments align with the following 4 topics:

1. What worked? What did you see that went well?
2. What did not work? What needs improvement?
3. What surprised you?
4. With how many CERT members did you interact?
5. How many City Scan forms did you receive?
6. Other areas or comments?

1. What Worked? What did you see that went well?

- Good net protocol and discipline
- Assignments to fixed locations worked well
- Rhythm on net sounded good with few collisions
- the bulk of the traffic was from those locations and were from CERT members showed that the links can work

1. What did not work? What needs improvement?

- **NET PROTOCOL:** Did not check for availability for field assignments. Wasted time in making assignments, then discovering some CARES members were responding to support a neighborhood per their CERT role.
- **NET PROTOCOL:** Handoffs between Field Responders and EOC RRO; (for example, EOC would say, "ready to copy" when net control passed control to them, and then the field responder would waste time by asking, "EOC, are you ready to copy?" Responders need to listen as well as they transmit.)
- **NET PROTOCOL:** No Health & Welfare checks were performed.
- **NET PROTOCOL:** Could have used a "synchronize watch" check to ensure we were all on the same time standard.
- **NET PROTOCOL:** Some stations could not hear both sides of the net and broke into on going traffic.
- **STAFFING:** EOC staffing to handle the volume of traffic, plus attempt to dispatch and manage the CCF100 activity. The result: kept members on channel after it was clear that it would be difficult to dispatch other teams.

- **STAFFING:** Could have used a resource net to manage resources not involved in the CERT relay message handling. Some responders could not break back in to request information or an alternate assignment.
- **MSG HANDLING:** Several non-emergency messages were passed when NCS only wanted Emergency. Too many reports coming in under the wrong message priority (many comments). Emergency traffic was often diluted with Urgent or Routine.
- **MSG HANDLING:** Too little “This is Drill Traffic” announcements, except by Net Control.
- **MSG HANDLING:** Too much detail for a City Scan Report (lists of addresses)
- **MSG HANDLING:** Message pacing was too fast. Needed to remind message initiators to slow down, 5 word blocks.
- **MSG HANDLING:** From a CERT member: Spent the whole drill waiting to get message through.
- **MSG HANDLING:** Felt that field operators were handed a City Scan Form, and that “became a message”
- **MSG HANDLING:** Holes in ability to judge the priorities of the message. Plenty of cases that forced a review of priorities.
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- **SCENARIO:** Drill scenario resulted in too much emergency traffic, not enough variety, therefore some stations could not participate.

1. What surprised you?

- It's remarkable hard to listen to both the radio and people around you. I forgot to pack my headset, which would have helped.
- Good to hear the cert info being feed back to EOC
- The amount of traffic we received and the fact that it was generated by CERT people. It may not have actually been much, but it seemed like a tidal wave to me. And the observation that a real emergency will be even more chaotic is scary but even more challenging to figure out ways to communicate more information quicker.
- The way the content of the traffic was received. Even with the form in front of me, the delivery from the field was sometimes verbatim of the scan sheet and other times it was after being filtered and summarized by CARES member.
- The level of detail in CERT messages.
- A Field Responder had 6 walk-ups, plenty of traffic.
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4. With how many CERT members did you interact?

By what means? Walk-ups? FRS?

- None. Never got an Assignment.
- None. I had my FRS set to 5-5 as previously announced and heard no activity from the location of Tin Tin Shopping Center (Blaney & Bollinger).
- Mainly 3 or 4 cert members, but they were relaying info from all over our neighborhood. The other CERT members were also communicating via FRS. I found it totally hopeless to try to monitor FRS 5/5.
- None @ Cupertino HS - did not expect many (any) since this area is not as well organized.
- Fairgroove: was using it within the neighborhood.
- YES, there was one CERT/FRS message exchange to CARES.
- One CARES member did not hear any FRS comms. Common response.
- Intent was to use 5/5 for common channel, then some other channel for inter-neighborhood.
- There are 12 organized neighborhoods.

5. How many City Scan forms did you receive?

- None. Never got an Assignment.
- None. Not part of that exercise activity.
- NONE

6. Other comments?

- One comment came in that tac-2 wasn't working. Tac-2 worked just fine as far as i could tell. It's just that nothing much was happening on tac-2 and that may have seemed like it wasn't functioning.
- A single radio or ht per person seems to me inadequate. I had to have a base radio, my ht and my scanner on at all times to catch all the traffic (at those few times that tac-2 was used.)
- Simplex seems not adequate to our needs. People in the field could transmit and receive from net control ok, but too many field responders couldn't hear the other field responders and routinely doubled other people's transmissions, thinking the freq was clear to use. Simplex is a nice idea, but even in the short range area we work in there are far too many obstructions, gulleys, culverts, ridges, canyons, etc. That make simplex not work ht-to-ht-to-net.
- Congratulations on what appeared to be a successful SAT. More attention should be paid to station H&F checks, however.
- GOOD DRILL - MORE "REALISTIC" WITH THE CERT FOLKS GIVING US REPORTS.
- I received my call at about 10:20. Message was we are activating the telephone tree, make your calls. On my 4 calls, I completed two. one busy, one no answer. I changed the message to activate the telephone tree and check into the net. I was not successful in checking into the net with an HT. My suggestion would be for the Net Control at "on the hour" and "half hour" to ask "Are there any new CARES stations wishing to check into the net?" They could then be either asked to stand by for assignment, or give a brief status report on their neighborhood if requested.
- EOC should have names of organized neighborhoods with all streets contained. This would avoid transmission of names of streets. Possibly assign designation or code number to each organized neighborhood.
- CERT should organize Cupertino City Scan form so as to clearly indicated levels of priority: emergency - life threatening, status - hazards, etc. These terms should be listed and defined on forms.
- What level of detail? Are individual addresses really necessary or are street names sufficient?
- Sharon Blaine will send more suggestions to Marsha.
- I was assigned to the Monta Vista fire station. The firefighters there were expecting us, having been informed by email.
- I initially connected my handheld to the antenna drop. The signal into the EOC was surprisingly poor. It was actually a bit better with the radio's standard antenna. We will need to see if the problem is with the station's j-pole or with my handheld or cable.
- I did notice that the spacer on the j-pole is broken, but that should not affect its performance as long as the elements are still aligned (which they appeared to be). Given the communication problems, I moved to my car in the parking lot to use its mobile rig.
- The FRS radio broke squelch a couple of times during the drill, but no contact was made.
- Two CERT members hand-delivered reports to me. I consolidated the Emergency level information into one report (#9) to the EOC. Due to the amount of traffic on the net, I was not able to report the Urgent level info before the end of the drill.
- The biggest problem I saw was the prioritization of traffic. A fair amount of non-Emergency info was being passed while stations with Emergency traffic were waiting. Net Control did try to remind the operators of what constituted high priority traffic, but the problem continued. At times, I thought that the EOC operator should have been more aggressive in refusing the lower priority traffic and allowing Net Control to move on to the next station.
- We need to better train our members to filter the information they receive and to prioritize it properly before contacting Net Control. Again, Net Control did try to control the situation, but the problem needs to be addressed at the individual responder level.

- I wonder if there is still some confusion around the term 'Emergency Traffic'. Since this was a 'Simulated Emergency Test', perhaps some operators initially thought that all drill traffic was 'Emergency Traffic'. The term 'Emergency' does have two different meanings here.
- I think the interaction with CERT was valuable. It certainly was an effective way to create a lot of drill traffic and to stress Net Control and the EOC.
- A few stations suffered from low modulation.
- Operators should become proficient in use of the International Phonetic Alphabet.
- Operators should develop a format for transmitting information that makes it easy to copy. Poor Alan Gontangs got hammered!!! Even our public safety dispatchers in XXX XXXX could not keep up with some of the reports from the field.
- I encountered no CERT units. I drove around quite a bit since I was ostensibly a rover.
- CERT may wish to have units use tactical ID. When I passed a message for the CERT operator, I had to use his name and title which is a bit long.
- FRS has both frequency and tone. I had to search for what tone they were using in order to talk back. I monitored without receive tone. I was surprised I picked up only one FRS station. Were there others?
- Simplex - This drill really highlighted the experience of operating in a simplex environment where many stations cannot hear each other, effectively making the net rely more on relays and net control. Good action by all.
- From the base here at 19720 Aubrun, I was able to hear all CARES stations. I was a little surprised when there were a few occasions when Alan at the EOC could not hear units. I experimented with the TM-D700A in cross band mode at the base while out wandering and driving around. I was able to communicate with NCS and EOC as well as hear all units. Operation was sufficiently transparent that nobody seemed to notice any difference. Effectively I was able to use my base while anywhere from right under it to points west of Bubb at Stevens Creek.
- The vast majority of traffic, or for that matter all traffic, seemed to go between field units and the EOC. This asks the question of whether EOC and NCS should be merged. Or conversely, what is the original motivation for EOC and NCS being separate?
- It seems the variables are:
 - quantity of traffic
 - source and destination of traffic
 - number of frequencies available
- If we had two operators working as combination NCS-EOC stations on both frequencies 1 and 2, we could theoretically handle twice the traffic. Also the load would be spread out between two operators rather than just one handling all the transcription.
- I'll be quite interested to read the final report on all observations.
- Receiver of messages governs the speed of the message. For this type of exercise and these types of messages, EOC should tell sender what he/she is expecting to get - i.e., type of report (injuries, fires, collapsed buildings), followed by location, followed by count, asking sender for each element instead of sender rattling off message and asking "did you get that?". Of course, for more formal messages (e.g. for fire chief at EOC), the protocol we would use would be different.
- Receiver needs to write LEGIBLY and LARGE to reduce the amount of miscommunication and message repeats.
- I read Phil Hendersen's requirements for Net Control after the drill (and am still trying to find where I saw it) and was very aware of his points that make communication faster and more efficient.
- Dan Pickering said that nobody gave him any messages at Cupertino HS. Could be that those who would have been near him did not participate. In any case, it was a very worthwhile morning and drill
- Overall it was a very good practice and learning event.
- Yes, Was worthwhile
- Comments from the Fairgrove Neighborhood; Only 2 contact points in Fairgrove Neighborhood; 18-20 people participated; gas links, etc. Went well. They are planning a full neighborhood drill in April.

Had trouble getting their radio report through, wanted to (simulate) getting PGE to turn off the gas; worried about an explosion. Had half dozen FRS in use.

- FR Asked CERT member for details... was a report life-threatening?

Cupertino Amateur Radio Emergency Service
PART 6 Forms

Standard Operating Procedures

ICS 214 UNIT LOG		1. INCIDENT NAME CARES SET CUP-04-13T		2. DATE PREPARED 13-NOV-04	3. TIME PREPARED 0830
4. UNIT NAME/DESIGNATOR Cupertino ARES/RACES		5. UNIT LEADER (NAME AND POSITION) Jim OBERKOPFER SS		6. OPERATIONAL PERIOD 13-NOV-04 0800-1200	
7. PERSONNEL ROSTER ASSIGNED					
NAME		ICS POSITION		TEAM/AGENCY	
Jim OBERKOPFER		EC, Shift Supervisor			
Vince LaPorte		Councilor Engineer			
Bill Klein		NCO			
Allan Gentry		ARO			
8. ACTIVITY LOG					
TIME		MAJOR EVENTS			
0830		Radio Check, EOC operational			
0847		Permission granted to activate mobile CUP-04-13T, per phone call w/ Moshe Horey, Cupertino OES Dispatch			
0930		Activated the CARES emergency Net			
1134		Secured the CARES net			
1215		DEBRIEF complete			
ICS 214		PREPARED BY			

Cupertino Amateur Radio Emergency Service
PART 6 Forms

Standard Operating Procedures

ICS 204 ASSIGNMENT LIST (COMMUNICATIONS)		1. BRANCH Cupertino EOC Planning/Intel		2. DIVISION/GROUP Cupertino ARES/RACES	
3. INCIDENT NAME SET CUP-04-13T			4. OPERATIONAL PERIOD 0900-1200, 13-Nov-04		
5. OPERATIONS PERSONNEL					
EMERGENCY COORDINATOR <u>Jill K6GPE</u>		ENGINEER IN CHARGE <u>Vince K6TEN</u>			
RESOURCE/LOGISTICS <u>Ken K6CO</u>		AEC _____			
6. RESOURCES ASSIGNED THIS PERIOD					
RESOURCE DESIGNATOR (Tactical Call)	LEADER/ RESPONDER	NUMBER PERSONS	TRANS. NEEDED	DROP OFF PT/TIME	PICK UP PT/TIME
NCS Operator	Bill K6TBJ				
EOC Radio Room Operator	ALLAN K6GPP				
CUPERTINO FIRE	PHIL W6KDX				
MOUNT VISTA FIRE	CHRIS K6PSJ				
SEVEN SPRINGS FIRE	ERIC K6GPT				
CUPERTINO HS	DAN K6SAA				
TOLLYMAN PARK	ALF K6TUF				
	SLP W6VFD				
	K6FUZ				
	K6GUS				
	K6GSA				
ST ANDREWS	DICK OOK				
FairGrove	FZJ				
HIGHLANDS	LOCH K6GGA				
7. TACTICAL OBJECTIVES					
8. SPECIAL INSTRUCTIONS					
9. COMMUNICATIONS SUMMARY					
ICS 204	PREPARED BY	APPROVED BY	DATE	TIME	

Rev 3.0 9/2/2002

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Cupertino Amateur Radio Emergency Service
PART 6 Forms

Standard Operating Procedures

CHECK IN LIST		1. INCIDENT NAME SET CUP-04-13T	2. DATE 13-04-04		3. INCIDENT NUMBER CUP-04-13T	4. CHECK IN LOCATION
		TIMES				ADDITIONAL INFORMATION
ICWEN MARK	NAME, RESUME, AGE, LICENSE TYPE, POSITION	AGENCY/TEAM	TIME IN	TIME OUT	HOURS	
	Vince	KCTE4	0815	1230		
	Jim O'Rourke	K26PE	0830	1230		
	Aaron Goustan	K6810	0239	1252		
	Bill Kley	K8GT8	0845	1230		
	Ken Foot	KR6CO	0855	1230		
X	MARSHA HOVEY	K6CCYV	0900	1230		
	KCCPTJ		930	1130		54 MANDRA (3)
	WAGVP		1	1130		OUTER, MCOY (3)
X	W2K9X		1	1230		T SUSLOW / JOHN
X	W2K9X K6GRT		1	1130		D STERN / RAMBO
X	K6CPHO		1	1130		O MOBILE (0)
	W2B5X		1	1130		D4 BURR (G, C)
	K6TWF		949	1110		MOBILE (E)
	K6ODK		1	1110		ST ANDREWS (0)
	K6R2D		1	1130		BOHLMER / M
X	K6GNCB		1	1132		LAINBOY / C (0)
X	K6F02		1	1132		C8 (3)
	K6CDB		1	1132		LAWR (3) BOELING
X	KAS TAA NT		1	1152		STARR, LAURENCE 3 CHS
X	K666CA		10:07	121		M T6 FRS
	W2B5X 81T					
ICS 211B		PAGE _____ OF _____		5. PREPARED BY (RESOURCE UNIT)		
BASARC 3/98						

Rev 3.0 9/2/2002

MW F

CF -

75F -
Soulym

CHS

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LOCATION / FRS, GPS, DIG CAMERA

End of Report.