

After Action Report

Cupertino Dam Break; CCC Activation



Cupertino
ARES/RACES

1. Overview

Description: Stevens Creek Dam Break
Event Date: 27-October-2012
Report Date: 12-November-2012
CARES Event: CUP-12-09T
RACES Event: CUP-12-09T
Control: Cupertino ARES/RACES
Report Revision: 1.1, FINAL
Submitted by: Jim Oberhofer KN6PE

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)."

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

i. Introduction and Background

Terms

ARC: Fixed position shipping containers strategically placed throughout the City by Cupertino OES that contain emergency supplies for the purpose of supporting community-based search and rescue, and first aid.

BBF Blackberry Farm, local city park and the scene of field response by city volunteers.

CCC Cupertino Citizen Corp; the City volunteer umbrella organization for CARES, CERT, and MRC.

CCC Liaison Named CCC member who acts as the interface between the EOC staff and the responding CCC members.

CARES: Cupertino Amateur Radio Emergency Service, ARES/RACES organization supporting the City of Cupertino.

CERT: Community Emergency Response Teams.

DOC Department Operations Center; CCC Liaison to the Cupertino EOC Staff.

MRC: Medical Reserves Corp.

SUV Spontaneous Unaffiliated Volunteer; an individual that does not understand our response process but shows up and wants to help.

Introduction

The City of Cupertino believes that testing community emergency response plans and ongoing community disaster preparedness training are essential to a successful disaster response program. Annual citywide volunteer exercises have been conducted each fall since 2009. The exercise planning and pre-exercise training program creates exciting and rewarding experiences for all participants.

The purpose of this year's exercise was to test all aspects of the Cupertino Volunteer response – CERT, MRC, and CARES. The expected outcome was to identify additional training, planning and supply needs. The CARES response included a full field communications deployment to test the City's Comm Van, Packet, and specific processes relevant to the CARES mission.

The City of Cupertino authorized the drill under training activation number CUP-12-09T. This report covers the activities undertaken primarily by responding CARES members and the findings from that drill. This report will also be used as input into a broader citywide after action report to be developed by Cupertino OES.

ii. Type / Location of Event / Drill / Exercise

Event Type: City of Cupertino, City Volunteer Training Activation
Event Identifier: CUP-12-09T
Event Name: Stevens Creek Dam Break
Location: City of Cupertino

iii. Description of the Event / Drill / Exercise

Cupertino Office of Emergency Services (OES) drill objectives:

1. Planning decision to use Citizen Corps
2. Notification processes
 - Cupertino Alert System
 - SCC Alert
 - 1670 AM
 - "Phone Tree" for critical positions (Management/Command, and General staff)
3. Simulation Cell for Exercise Conduct
4. Use of the City Radio frequency/system

CERT drill objectives:

1. Establish Remote Incident Command Post (ICP)
2. CERT skills exercises
 - Safety Assessment
 - Cribbing
 - Search & Rescue
 - Medical Triage
 - First Aid
 - Fire Suppression

MRC drill objectives:

1. Patient Secondary Assessment
2. Establish Medical Branch/Group, Triage, Treatment, and Transportation Units
3. Turnover, Report to EMS/CNT

CARES drill objectives:

1. Communications support of the EOC

2. Support of the DOC and CCC Liaison at the EOC
3. Voice and Packet communication transmission using the City Communications Van
4. Field support based on resource requests
5. Focused Infrastructure Safety Assessment – based on City and MOU requirements

The balance of this report will focus on the activities performed by CARES.

Event resources came from the following organizations:

1. CERT: Responsible for setting up and staffing the field ICP, as well as event coordination during the CERT skills training activities.
2. MRC: Responsible for setting up and staffing all field medical stations.
3. Cupertino ARES/RACES: Responsible for staffing the City's Communication Van, net control positions, and field communications team. Twenty (20) CARES members and one MRC Amateur Radio Operator participated in the test.

Name	Call Sign	Assignment
Rohan Agrawal,	KJ6LXV	Van Packet AM
Hela Bluhm-Stieber,	KJ6OHF	BBF observer AM
Chris Capener	AI6CC	BBF Field SS AM, Van SS PM
Lynn Cappener	KD6ALO	BBF Field Responder AM
Kalidas Cheroolil,	AF6SL	BBF Field Responder AM
Lloyd Dickman	AF6XM	BBF Field Responder AM
Nancy Gabriel	KG6TEU	BBF Field Responder PM
Gerd Goette	KI6WEJ	EOC DOC
Allan Gontang	KD6QPP	VAN Shift Supervisor AM; RRO PM
Chris Hall	K6SPV	BBF MRC Radio AM
Phil Harris	WA2KDX	BBF NCS AM PM
Bill Klein	KD6TQJ	Van NCS/RRO AM
Vince LaPorta	K6TEN	Van Engineer AM PM
Paul LeDoux	KI6DRN	BBF Field Responder PM
Dick Mincher	W6RWM	Dam Field Responder AM
Janet Motha	KF6PUQ	BBF Field Responder PM
Jim Oberhofer	KN6PE	Van/Rover AM, BBF Field SS, PM
Muni Puttappaih	KI6HYS	No assignment
Dick Sherman	N6IK	BBF Field Responder AM
Mark Taylor	AG6CL	BBF Field Responder AM
Judy Wang	KI6WEF	No Assignment

Because the event scenario was flooding due to a dam break, the drill was initiated by means of the Cupertino Alert System (automated phone notification system). On receipt of the notification, CARES did the following:

1. Moved the Comm Van into position at City Hall in anticipation of supporting the EOC.
2. Established the Resource Net for initial drill check-ins.
3. Received member check-ins on the CARES Emergency Net on TAC-1.
4. CARES members were checked for their availability to respond to the field. Field Responders were dispatched to EOC and Event site.
5. CERT established the ICP at Blackberry Farm (BBF).
6. A CARES Field Supervisor was named. A local traffic net was established at BBF. Packet Radio was deployed to the field. CARES Field Responders were deployed to the field. Voice and Packet Communications were also maintained between the Field and the Comm Van.
7. A second shift was planned. The EOC Net directed the next shift resources to BBF. Shift change occurred at both the Comm Van as and at BBF.
8. At the end of the drill, CARES Field Responders were released from the Activation.

Performance against Objectives:1. Communications support of the EOC

Results: **SATISFACTORY**. The Comm Van was deployed and activated at City Hall in support for the EOC and CCC Liaison. All Van operations, procedures, and systems were exercised.

2. Support of the DOC (CCC Liaison)

Results: **SATISFACTORY**. With the Comm Van in the parking lot at City Hall, a WAN connection was established between the Cupertino Citizen Corp (CCC) Liaison and the Comm Van. Command, control, and message traffic was exchanged between these 2 sites. See *Communications Systems* Section below for details.

3. Voice and Packet communication transmission utilizing the Communications Van

Results: **SATISFACTORY**. All Comm Van radio systems were checked. Packet messages were exchanged with the BBF site. Resource and message traffic was handled with all responding and deployed field units.

4. Field support based on resource requests

Results: **SATISFACTORY**. Two shifts of a full Field Communications Team – Field Supervisor/Comm Team Lead, Net Control Operator, and Field Responders – were identified and successfully deployed. Deployed field team message traffic and status was passed to the ICP, and rolled up to the EOC as appropriate.

5. Focused Infrastructure Safety Assessment – based on City and MOU requirements

Results: **Not evaluated**. Insufficient staffing to accommodate this field deployment. This will be addressed during the May 2013 CARES Field Deployment Exercise.

The drill ran for 8 hours.

iv. Chronological Summary of Event / Drill / Exercise

CARES ran this test under activation number CUP-12-09T. The following is a compilation and summary of the activities as reported on ICS-214s that were submitted after the test. All times listed here are in local time. The following is a very high level summary.

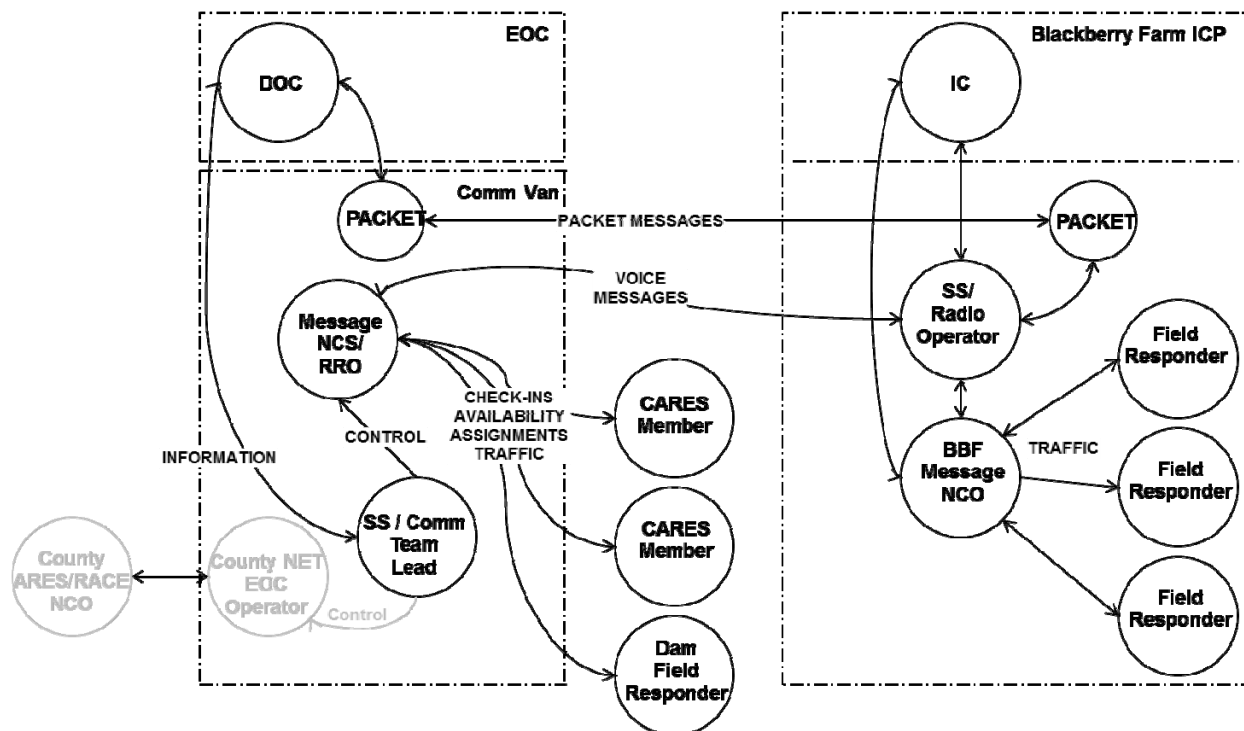
Time	Description, Notes, Comments
0700	CCC management conference call; update from the EOC by the CCC Liaison. The scenario was: apparent flooding north of Stevens Creek Dam caused by a dam breach.
0700	Allan KD6QPP was dispatched to retrieve the Comm Van
0830	Comm Van is operational; KN6PE opens the CARES Emergency Net, TAC-1. KD6QPP assumes Shift Supervisor.
0840	Eighteen (18) members check in. Polled for the following: (i) availability for a Field Assignment, (ii) if they have a Mobile radio to go, and (iii) if they have a portable printer (for field packet).
0900	First shift assignment is made to six (6) CARES members to respond to Blackberry Farm. Second shift resources are released from the net.
0930	Assignment made to W6RWM for Dam surveillance.
0940	KN6PE transfers Message NCO/RRO to KD6TQJ.
1000	Packet Kit sent to the field.
1130	Second shift resources check back in; assigned to BBF site.
1300	Shift Change: Shift change complete in the Field. AI6CC assumes Van Shift Supervisor; KD6QPP assumes Message NCO/RRO; various at BBF.
1530	Begin DEMOB.
1600	Secure CARES Emergency Net. End of Drill

v. Response at SEMS Levels (as appropriate):

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

The CARES Field Response allowed us to set up a parallel communications structure made up of a Shift Supervisor, Net Control Operator, and Field Responders. While fully empowered to maintain command and control in the field, the BBF field operation maintained a link to the EOC through the Comm Van.

The following diagram describes the information flows and handoffs. Not all command or control flows are listed.



vi. Interacting Systems, Agencies, and Programs:

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

Communications Systems

All CARES frequencies were used as part of this test. All communications systems performed as expected.

The CCC Liaison/EOC-to-Comm Van WAN solution worked better than anticipated. The objectives for having a network connection between the two sites were:

1. mitigate the need for a "runner" to transport messages between the EOC and the Comm Van, and
2. look for solutions to pass messages between the CCC Liaison and the field with minimal transcription and handling.

This was accomplished with the following tools:

1. WAN: created a hot spot that was accessible by all PCs in the Comm Van and the EOC.
2. Pidgin: a chat program that allowed us to pass command and control as well as message traffic among all connected PCs. To make it "serverless" (stand-alone), the Bonjour tool (Apple) was also used.
3. Outpost: a Packet Program that can take cut-and-paste messages from Pidgin directly into an Outpost message form to quickly create and send a packet message.
4. PCs were introduced into the Comm Van management environment. Besides packet support, the Shift Supervisor had a PC that allowed him direct chat access to the CCC Liaison in the EOC.

The message flow was as follows:

1. The CCC Liaison created an electronic document or typed a message sitting in the EOC. He then cut-and-pasted the message into Pidgin, and sent it directly to the Packet Operator.
2. The Packet Operator saw the incoming message, opened a new Outpost message form, and cut and pasted the text from Pidgin into the Outpost message form.
3. The Packet Operator completed the outgoing message – destination and subject – and sent the message.
4. For incoming packet messages, the Packet Operator consulted with the Shift Supervisor, and at his direction, cut-and-pasted the Packet message into Pidgin, and sent it to the CCC Liaison.

As stated above, as a first attempt at deploying PCs into the message arena, this approach worked better than anticipated. Other tools and options will be explored in subsequent solution design sessions.

vii. 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 Conclusions and Recommendations.

What worked

- The IM setup (Pidgin) between the DOC and the Van.
- Comm Van as a radio room replacement seems to be complete.
- Packet worked well with getting longer messages (or any messages) from BBF to Van to CCC Liaison with no transcription.
- The Check-in process and assignments went smoothly. Scheduling the second shift went without a hitch.
- Field assignment shift changes
- The local NCS worked very well. Knew where everyone was at all times.
- Good transition of 8 CARES members from TAC 1 to TAC 2 on arriving at BBF.
- Field Net Control was where the action was (at the ICP).
- Good use of SUV for MRC Med Comm. On the air training was needed.
- CARES members became part of CERT teams.

What didn't work / needs improvement

- Need a better T-card system in the Van for resource tracking
- Blackberry Farm to EOC/Com Van VHF link was very marginal with an HT. Even with the 15ft Antenna kit, local interference was problematic; resolved with a mobile radio.
- Could not always contact people due to terrain and other factors.
- Felt that this was purely a CERT event.
- Unclear expectations and insufficient instructions for the CARES Field Responders as to what kind of information was to be passed back, if any, and to whom.

Observations, Conclusions

- EOC-Van connectivity. While the time to develop the protocol for passing messages still needs to be worked out, it was apparent that the use of a local hot spot and select PC tools can increase message handling efficiency by only the originator touching the message, and everyone else just passing it along. This approach can be deployed to the field as well once CERT determines there is value in deploying PCs and a local Hot Spot in the field.

Recommendation

Field Responder Dispatch

It was clear that the information needed by the field responders was more than what was passed as part of this exercise during the dispatch process. As a result, the actions taken by arriving responders were inconsistent.

1. Find or develop a Resource Dispatch form (“go to...”, “report to...”, “your assignment is to...”, “on arrival, change frequency to...”, etc).

Expand, complete qualifications

The communication requirements of the event were such that CARES essentially had to intact communications teams operating at the same time. Adding in the requirement for 2 shifts pointed to the need to ensure we have sufficiently qualified and cross-trained individuals available.

2. Complete the NCS/RRO qualifications for the CARES members already in progress.
3. Hold NCS/RRO training using the Comm Van as the response platform.

More communications practice

Field Responders commented that this was really a CERT drill with very little radio traffic required. The Debrief pointed to the question: Could this volume (or lack thereof) of message traffic be representative of what we might actually experience? We believe the answer is: Probably. With this as a possibility, CARES needs to increase the opportunities for message handling, both voice and packet to maintain proficiency. The following training plan is proposed for the next 6 months:

4. November:	NCS/RRO simulation	10-Nov	COMPLETE
5. December:	Hands-on Packet	8-Dec	
6. January:	PSA Drill, Voice	19-Jan	
7. February:	Hands-on Packet	16-Feb	
8. March:	NCS/RRO simulation	16-Mar	
9. April:	Hands-on Packet	6-Apr	
10. May:	Spring Comm Field Drill	18-May.	

Logs, attachments:

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

None attached.

End of Report.