After Action Report
2017 Infrastructure Safety Assessment Drill

Cupertino
ARES/RACES

1. Overview

Description:	Infrastructure Safety Assessment Drill
Event Date:	13-May-2017
Report Date:	19-May-2017
CARES Event:	CUP-17-19T
RACES Event:	CUP-17-19T
Control:	Cupertino ARES/RACES
Report Revision:	1.1, **FINAL**
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Requirements for Reporting[1]
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

ARP:	Alternate Response Plan. Defines the approach and equipment we will use in the event the PSC Vehicle is out of service.
CARES:	Cupertino Amateur Radio Emergency Service, ARES/RACES organization supporting the City of Cupertino.
CCC:	Cupertino Citizen Corps; the City's umbrella organization for CARES, CERT, and MRC.
CERT:	Community Emergency Response Team; trained members who can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help.
CuSD:	Cupertino Sanitary District, a CARES Served Agency.
DOC:	Department Operations Center. Manages the overall field CCC deployment; aggregates data to be passed to the EOC. Advices EOC Staff on CCC capabilities, readiness, and activities.
IP:	Improvement Plan; includes the key recommendations and corrective actions to be taken as a result of this exercise.

[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

ISA:	Infrastructure Safety Assessment, a CARES Process. The focus for this drill.
MRC:	Medical Reserve Corps; volunteers who are practicing or and retired physicians, nurses and other health professionals, as well as other citizens interested in health issues, who are eager to volunteer to address their community's ongoing public health needs and to help their community during large-scale emergency situations.
NCO/NCS:	Net Control Operator / Net Control Station. The control function that ensures the efficient passing of messages between stations on the frequency.
PSA:	Preliminary Safety Assessment, a CARES Process.
PSC:	Public Service Communications. Used in conjunction with the Communications Vehicle owned by the City and operated by CARES.
RRO:	Radio Room Operator. The position that originates and receives messages for exchange with field responders.
SCVWD:	Santa Clara Valley Water District
SJWC:	San Jose Water Company, a CARES Served Agency.
Served Agency:	An agency, special district, or other recognized organization with which CARES has a signed Memorandum of Understanding to assist in time of need.

Introduction

The City of Cupertino supports testing the community emergency response plans and ongoing disaster preparedness training as an essential component to a successful community disaster response. One aspect of the CARES mission is the Infrastructure Safety Assessment (ISA).

CARES performs the Infrastructure Safety Assessment (ISA) on specific Cupertino critical facilities that are deemed to be important to the City or our Served Agencies. SJWC has 21 assets in Cupertino; the CuSD has another 11. These Served Agencies have requested an eyes-on assessment of these assets because they will not have the manpower to inspect all of their assets immediately after a disaster occurs. Additionally, there are other assets belonging to SCVWD, PG&E, and the City that are also part of the review.

We perform the ISA to:

- Develop a picture on the state of the city's critical infrastructure.
- Help the EOC focus attention on problem areas that may only get worse or impede the recovery if not immediately addressed.
- Provide an early report of asset status for our Served Agencies.

The purpose of this exercise was to test the ISA Process as performed by CARES.

The City of Cupertino authorized this exercise with training activation number CUP-17-19T. This report covers the activities undertaken by CARES and the findings from that drill.

ii. Type / Location of Event / Drill / Exercise

Event Type:	City of Cupertino, CARES Training Activation
Event Identifier:	CUP-17-19T
Event Name:	Infrastructure Safety Assessment
Location:	City of Cupertino

iii. Description of the Event / Drill / Exercise

CARES drill objectives:

1. Exercise emergency voice communications message handling procedures between deployed field responders and the EOC.
2. Test the ISA process, remote staging option.

3. Exercise the PSC Alternate Response Plan equipment and setup.
4. Exercise information handoffs to Served Agencies (SJWC, CuSD, SCVWD).
5. Manage information using OES documentation, procedures, and tracking methods.
6. Perform Radio Checks from each ISA asset location.

Event resources came from the following organizations:

1. Cupertino ARES/RACES: Responsible for checking into the CARES emergency net, responding to the field to perform the ISA process, rolling up the results, and transmitting the results to the Cupertino EOC Staff. Sixteen (16) CARES members participated in the test.

The drill was initiated as a pre-announced event with CARES members checking into the net at the appointed time and responding from their homes.

Performance against Objectives:

1. Exercise emergency voice communications message handling procedures.
Results: **SATISFACTORY**. The status of all assigned assets was passed and recorded correctly. Some reminders to Field Responders to direct their traffic to the EOC via the DOC, not the net control station.

2. Test the ISA process, remote staging option.
Results: **SATISFACTORY**. This was the first time assignments were made from more than one location. Three ISA staging locations were set up and assignments were made. Inter-staging traffic was correctly handled. All directions, images, and instructions were reported to work. Some changes were recommended.

3. Exercise the PSC Alternate Response Plan equipment and setup.
Results: **SATISFACTORY**. Portions of the PSC ARP equipment were tested for the first time. Some personal gear similar to what the City will be buying was deployed. All radios, antennas, and operations were confirmed to work as expected.

4. Exercise information handoffs to Served Agencies (SJWC, CuSD, SCVWD).
Results: **SATISFACTORY**. Packet messages were sent to all three agencies with a cumulative report-out on the state of their respective assets.

5. Manage information using OES documentation, procedures, and tracking methods.
Results: **IMPROVING**. ICS 214 logs were received from all EOC and field teams. All OES documentation was returned. All ISA asset sheets were returned and accounted for.

6. Perform Radio Checks from each ISA asset location.
Results: **SATISFACTORY**. While no explicit radio check was made at each asset location, all ISA locations were confirmed by radio with one exception one (as expected).

iv. Chronological Summary of Event / Drill / Exercise

CARES ran this test under activation number CUP-17-19T. The following is a 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
0645	EOC setup begins.
0738	Setup complete: Resource Net, Radio Room Op, Packet positions in place
0800	CARES Emergency Net was activated, taking Resource travel check-ins.
0822	Started ISA assignments; 3 staging locations
0849	Team 3 assigned, checked out of Resource Net, into the Message Net
0900	Team 5 assigned, checked out of Resource Net, into the Message Net
0903	Team 2 assigned, checked out of Resource Net, into the Message Net

Time	Description, Notes, Comments
0904	Team 1A assigned, checked out of Resource Net, into the Message Net
0915	Team 6 assigned, checked out of Resource Net, into the Message Net
0933	First Packet message to SJWC.
0959	First Packet message to CuSD.
1035	First Packet message to SCVWD.
1100	Secured the Exercise. Directed all participants to return to City Hall
1135	Drill concluded; Full debrief at City Hall.

v. Response at SEMS Levels (as appropriate):
Include a summary, conclusions, the field response, and other local, operational area, regional, state or federal response.

Participating CARES members responded from their home locations to perform the ISA per the actual Served Agency asset locations. The following specifics are noted here:

- The Two-Man Rule (buddy system) was in effect for all ISA responders.
- CARES fielded 5 vehicle teams. The Six Team ISA Set was used.
- 30 of the 37 assets were assigned and located. The remaining assets were simulated reviewed to ensure Served Agency reporting was complete.
- Radio packet messages containing ISA summaries were originated and transmitted to all three served agency as a test of the ISA asset status delivery process.
- It took 2 hours for 5 teams to perform the assigned ISA.

The CCC DOC was not staffed.

No other organizations or entities participated in this drill.

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.

ISA Process
A review of the ISA process was presented to the membership at the March and April 2017 CARES General Meeting. The key success factors for this drill were:

1. CARES members can operate in the field in ad hoc teams (one driver and one radio operator).
   Results: Teams were effective with a 2-person driver/Radio Ops approach.
2. The ISA Assignment sheets are clear on where to find the asset and what to look for.
   Results: CuSD completed a deployment of new generators to several locations; new site pictures are required. One CuSD asset can use clarification on its exact location relative to surrounding addresses. One SJW asset change was reported. Despite these anomalies, all assigned assets were found.
3. The message handling of ISA reports is clear and succinct.
   Results: Reports, both nominal condition and trouble reports, were passed effectively.
4. ISA status can be delivered to the EOC and appropriate served agencies.
   Results: Outpost address book entries were created for each Served Agency that included both packet and agency representative email addresses. All reported receiving email drill reports. Additionally, one Served Agency responded with a request for follow-up on a specific asset.
5. Field Teams operate safely and do not take any unnecessary risks.
   Results: The Safety Briefing impresses the need for personal safety at all times. No reports of personal hazards or risks were made.

Communications Systems
1. All ARP radio systems performed well. Due to delays in acquiring antenna systems, personal antenna equipment was used. All VHF net traffic was with antennas at 30ft.

2. CARES activated the resource net on VHF TAC-1 and was linked to the CARES UHF repeater. No coverage problems were reported. The Message Net operated on TAC-2 from a member's home location situated in the north-central part of the city. Minor coverage problems were reported.
3. Simplex radio coverage from the ARP equipment set was sufficient to maintain radio contact with all mobile field units, specifically at SJW-T1. All field teams had access to the UHF Repeater if problems on the simplex channel occurred.
4. No intermod problems with any CARES TAC frequency was reported.

WiFi Network Systems

1. Not part of the test. However, future PSC ARP implementations need to account for a network connection to the EOC/DOC.

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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

- Making field assignments from different ISA Staging locations.
- Deployed ARP equipment.
- Found all assets; good access to all sites; directions were clear; some updates required.
- Good traffic passing observed.
- Great experience.
- No stuck mics!

What didn't work / needs improvement

- Some reception problems (usual locations).
- Others?

Recommendations

See Section A: Improvement Plan

new CuSD site pictures are required
Complete build-out of the ARP equipment packages… masts, tripods, coax

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viii. Logs, attachments:

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

The following reports are attached:

1. Corrective Action Plan
2. ICS 214 Event Unit Log
3. COES 201 Net Control Station Log
4. Packet Message, Printed ISA Report

End of Report.

A. Improvement Plan

This IP has been developed specifically for CARES as a result of 2015 ISA Drill (CUP-17-19T) conducted on 16 May 2015. These recommendations draw on the After Action Debrief. The IP has been formatted to align with the Corrective Action Program System.