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# ***Earthquake Day 2 – Comm Outage***

## **Exercise Plan**

Cupertino Office of Emergency Management

CUP-21-39T

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Version 1.4



**CUPERTINO**

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### Revision

Rev	Date	Comments
1.0	9/23/2021	Initial Draft
1.1	10/21/2021	Update reflecting discussion, changes to scope
1.2	10/26/2021	Final Reading with updates
1.3	11/1/2021	Additional doc refinements, no significant content change
1.4	11/16/2021	Additional doc refinements; clarification on the DOC role.

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# 1 Exercise Plan

## 1.1 Background

### 1.1.1 Introduction

The Cupertino Citizen Corp (CCC), made up of the Cupertino Amateur Radio Emergency Service (CARES), Community Emergency Response Team (CERT), and Medical Reserve Corp (MRC) are teams of Cupertino residents who have volunteered their time and resources to support the city during an emergency.

The Cupertino Office of Emergency Service (OES) has developed methods and procedures that leverage this large volunteer pool for the purpose of supporting a city emergency response. This effort is intended to integrate CARES, CERT, and MRC into a seamless response capability that can be deployed during times of emergency at the discretion of the City EOC Staff.

CARES periodically exercises specific Capabilities<sup>1</sup> to ensure on-going familiarity by its membership and Served Agencies<sup>2</sup>, as well as provide opportunities to look for process improvements. General message passing from established locations throughout Cupertino is one such task and a driver for this exercise. This exercise also incorporates a portion of the CERT organization into the communications mix.

This Exercise Plan addresses how we would execute on this event.

## 1.2 Purpose, Goals and Objectives

### 1.2.1 Purpose

The purpose of this exercise is to test and validate the plans, policies, procedures and capabilities of Cupertino ARES when applied to a city-wide communications outage.

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<sup>1</sup> CARES Task List, <http://www.cupertinoares.org/docs/cup-ctl.pdf>, November 2019

<sup>2</sup> Served Agencies, <https://www.cupertinoares.org/index.php?content=about#whoweserve>

### 1.2.2 Objectives & Measures

An exercise objective is a description of the outcome expected from the exercise to demonstrate competence.

Objectives	Measures
1. Manage field and EOC activities per the CCC IDR Plan with minimum exceptions.	1. 90% alignment with the IDR Plan.
2. Track resources and information per the CARES Net Control procedures.	1. 100% responder tracking during the entire exercise. 2. One NCO can cover all resource and message net tasks.
3. Open all Cupertino ARKs per the Cupertino ARK Activation Procedures.	1. All ARKs open per the plan (resource constraint) 2. Setup complete per the Level 2 Activation guidelines
4. Pass formal 3rd party messages by voice, packet between the EOC and Field.	3. 100% of 3 <sup>rd</sup> party messages passed correctly.
5. Execute the Demob Process for all responders per the current Demob Process.	1. 100% paperwork is returned, complete, and signed.

### 1.2.3 Concept

1. The primary focus of this exercise will be on 3<sup>rd</sup> party message passing.
2. This will be a communications operational exercise based on an earthquake scenario building on CUP-21-24T ISA/Comm Outage exercise. This is the 3<sup>rd</sup> Operational Period (day 2) of that earthquake event.
3. Because Comm 469 was “left at the EOC overnight” (simulated), it will be fully operational when the exercise starts.
4. All IDR Plan protocols will be observed.
5. This exercise will be coordinated on standard CARES nets.
6. CARES responders will deploy from their homes either with Home Buddies or as solo assignments.
7. ARKs will be open to Level 2.
8. Voice message traffic will be a mix of informal and formal 3<sup>rd</sup> party triggered from the assignment scenario.

### 1.2.4 Exercise Schedule

All times are estimates. The schedule for the drill will be adjusted as necessary.

<b>Saturday, 20 Nov 2021</b>	
07:00	Retrieve C469, proceed to City Hall.
07:30	Begin C469 setup at City Hall per IPR Protocol. <ul style="list-style-type: none"> <li>• Packet – set up outside under a tent to handle general CUPEOC packet traffic and to receive and relay ALT911 messages. Need Sat-Phone access (?).</li> </ul>
08:30	Drill begins. Activate the CARES Resource Net; start taking check-ins and field assignment availability.
08:45	Begin making field assignments
09:45	All stations in position, and passing traffic.
11:00	Secure all field teams, return to the EOC
11:45	Demob complete; end the exercise.
13:00	C469 is secured.

## 1.3 Artificialities and Assumptions

### 1.3.1 Artificialities

1. The Cupertino EOC will simulate staffing to Level 1.
2. Day 2: Wired and cell phone services is sporadic if not overloaded. It is unreliable.
3. C469 will already in position since this is the 2<sup>nd</sup> day for CARES.
4. The Infrastructure Safety Assessment was performed on the first day (yesterday) of the emergency.

### 1.3.2 Assumptions

1. All field responders are vaccinated.
2. Comm 469 will be deployed to the EOC.
3. The DOC will not be staffed. CARES will simulate any EOC traffic.
4. CARES will activate the ARKs to Activation Level 2.
5. There are no plans for a formal CERT response. However, CERT will be invited to observe the Level 2 Activation at their own discretion.
6. County EOC will not be activated.
7. We will staff one operational period (day 2).
8. To complete the Day-2 IAP, we need to know who will be participating in the exercise. Solicit who will be participating prior to the exercise.
9. Weather conditions are current. The drill will not be postponed in the event of rain.
10. No public interaction is planned.
11. All information in the narrative is considered valid.
12. We don't have all the answers.

13. Out of scope for this exercise:

- GMRS Radio Test. Recommend scheduling a separate test in January 2022 for city-wide GMRS/FRS radio test to include ARKs to C469.
- Staffing County Fire stations.

## 1.4 References

- City of Cupertino Emergency Operations Plan
- CARES Standard Operating Procedures
- CARES Task List v2.1
- Field Communications Operations Handbook, CARES, Dec 2019
- Amateur Packet Radio Field Reference, CARES, Dec 2019
- *USGS Haywired Project*, [https://pubs.usgs.gov/fs/2018/3016/fs20183016\\_.pdf](https://pubs.usgs.gov/fs/2018/3016/fs20183016_.pdf)

## 1.5 Exercise Control

This is an operational exercise that validates our plans and procedures. It will be driven by scenarios and simulated conditions defined for each field response location.

## 1.6 Communications

1. Standard message passing procedures will be followed.
2. The CARES ICS-205 will be referenced.
3. Field Responders will check in from their home locations.
4. All radio communications will be followed by the phrase "THIS IS DRILL TRAFFIC"
5. In the event of an actual emergency during the exercise, radio communications will be preceded with, "THIS IS REAL WORLD TRAFFIC". The sender is required to ensure the message was correctly interpreted by the receiving station.

## 1.7 Safety and Security

1. Safety and security issues will be handled in accordance with established policies and procedures.
2. For home deployments, the two-person rule (buddy system) is suspended.

## 1.8 Evaluation

Participants will have an opportunity to critique the exercise during a post-exercise debrief session after the drill. Email submittals will also be accepted as feedback on the drill.

## 1.9 Reports

An After-Action Report will be completed as a result of the critique and evaluation of the exercise

## 1.10 Public Information

1. No test messages on Radio Cupertino 1670 AM are planned.
2. No press releases are planned.

## 1.11 Instructions to Participants

1. This is a training exercise designed to test capabilities, and new and/or existing procedures and processes.
2. Actions and decisions should be consistent with the procedures and training that has been conducted.
3. REMEMBER, this is an exercise and NOT a test!

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## 2 Drill Planning

### 2.1 Before the event

#### 2.1.1 OBJ#1: Manage field and EOC activities per the CCC IDR Plan

1. Review IDR Plan for any adjustments according to the state of the COVID-19 Pandemic... **DONE!**

#### 2.1.2 OBJ#2: Track resources and information per Net Control procedures

1. Finalize the Net Control Handbook... **DEFERRED**
2. Finalize the CARES Playbook, minimally including prioritizing field assignments... **DEFERRED**
3. Identify additional candidates for taking the net for this exercise...
4. DECISION: Go with only one NCO? ... **10/26/21: YES**

#### 2.1.3 OBJ#3: Open Cupertino ARKs per the ARK Activation Procedures.

1. Hold Open Houses at all ARKs as a refresher... **DONE!**
2. Confirm every ARK has a mag-mount (except MVA).
3. Notify De Anza Police of the exercise... KenE...
4. Notify County Fire of our presence at MVA for the exercise... KenE...

#### 2.1.4 OBJ#4: Pass formal 3rd party messages by voice, packet.

1. Update the Field Communications Handbook... **DEFERRED**

#### 2.1.5 OBJ#5: Execute the Demob Process for all responders.

1. Review, update the Demob Process, EC Playbook... **DONE!**
2. Identify the Demob Manager...

#### 2.1.6 Other work

1. Develop standing Earthquake IAP, 2<sup>nd</sup> Day (Moved to Planning Events)
2. Develop ICS 204 Assignment Sheet, Earthquake, 2<sup>nd</sup> Day ...

#### 2.1.7 Partner Reviews

1. Meet with Cupertino OES; brief them on the exercise plan; Tom Chin, Ken Ericksen, Bob Cascone ...

#### 2.1.8 Injects

1. Identify 2 - 3<sup>rd</sup> party messages for each field location.
2. To ensure sufficient 3<sup>rd</sup> party traffic, official messages will be simulated coming from:
  - a. PG&E utility field responders
  - b. San Jose Water field responders
  - c. Valley Water field responders
  - d. Cupertino Sanitary District field responders
  - e. Local school admin officials
  - f. AT&T utility field responders
  - g. Comcast utility field responders



- h. SJ FIRE 15 (sim)
- i. Others?

### **2.1.9 Planning Events**

1. 23-Sep-2021: first discussion.... ***DONE!***
2. 26-Sep-2021: First release, feedback of ExPlan, CARES... ***DONE!***
3. 27-Sep-2021: Introduction to CCC Steering Committee... ***DONE!***
4. 07-Oct-2021: First reading, feedback of ExPlan, CARES... ***DONE!***
5. 26-Oct-2021: Final reading, feedback of ExPlan... ***DONE!***
6. 11-Nov-2021: develop 2<sup>nd</sup> day IAP ...

### **2.1.10 Training Events**

1. 2-Sep-2021: CARES General Meeting, ARK Review... ***DONE!***
2. 12-Sep-2021: ARK Open House, Monta Vista (MVA) ... ***DONE!***
3. 18-Sep-2021: ARK Open House, Regnart School (RSA)... ***DONE!***
4. 26-Sep-2021: ARK Open House, Creekside (CSA) ... ***DONE!***
5. 02-Oct-2021: ARK Open House, DeAnza College (DZA) ... ***DONE!***
6. 09-Oct-2021: ARK Open House, Lawson School (LSA) ... ***DONE!***
7. 17-Oct-2021: ARK Open House, Garden Gate School (GGA) ... ***DONE!***
8. 4-Nov-2021: CARES General Meeting, Drill Prep... ***DONE!***

### **2.1.11 Action Items**

1. We use the ICS211B Check in List for in-person check-ins. Need to finalize the doc to use for over-air Net Check ins.
2. Resolve approach to handle ARK Level 2 activations (confirm interactions and expectations with schools, fire station for our setup).
3. Refine the criteria between CARES, DOC, and EM for initiating field deployments.

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## 3 Narrative

### 3.1 Scenario

**NOTE:** *This scenario is based on what could be a plausible request for emergency communications support by the city. While strictly fictitious, its primary purpose is to support the goal of practicing communications traffic handling.*

This scenario is based on the *USGS HayWired* earthquake scenario that was designed to model and study impacts on the San Francisco Bay area from a magnitude 7 earthquake on the Hayward Fault. The USGS study builds on understanding of the last large earthquake to occur on the Hayward Fault in 1868, but with the realization that modern urban infrastructures are made vulnerable by multiple layers of interdependencies between lifelines, with a major reliance on the Internet.

This exercise follows the CUP-21-24T exercise held in May 2021 and represents the second day after the earthquake occurred.

*23-Sep-2021*; COVID-19 restrictions are still in place.

**DAY 1 – Friday, 0600 PDT.** Major earthquake shakes the Bay Area.

The initial shaking felt like a 3 or 4 on the MM scale, with not much damage. Within 10 seconds, significant shaking (6 to 7 on the MM scale) was felt throughout Cupertino. This could only mean that the Hayward Fault ruptured.

- *Operational Period #1: 0800 to 1200.* CARES executed the ISA process, and reported on 1 water tank break and 3 sanitary system problems.
- *Operational Period #2: 1200 to 2000.* Citizen Corps activated the ARKs to Level 2 and reported there were plenty of community problems and residents without any phone service. At the end of Op Period #2, Comm 469 was secured and locked up at City Hall. All Citizen Corp volunteers were sent home. OEM requested Citizen Corps to return the second day and continue taking community local emergency assistance requests.
- *Operational Period #3: 2000 to 0800.* Minimum EOC staff was in place in the EOC overnight

**DAY 2 – Saturday, 0700 PDT.**

- *Operational Period #4: 0800 to 1600.* Objective: Resume taking community assistance requests; offer assistance as best possible.

*End of Scenario.*

## 3.2 Response

**NOTE:** This describes how the response is to unfold. It is a view based on discussions. Actual activities and outcomes may be different as we encounter real situations. All times are estimates.

Day 2

0700. **C469 Operator** Retrieves C469, proceeds to City Hall.

**C469, Shift Supervisor**, and staff at City Hall. Initial set up is limited to standard vehicle and radio operations.

We will need to staff these C469 positions:

Position	Req	Responsibilities
Shift Supervisor	1 FTE	Manages the CARES deployment
Net Control Operator	1 FTE	Covers Resource and Message Net
Scribe/NCO alternate	1 FTE	NCO Rotation
Packet Radio Op	1 FTE	covers CUPEOC and CUP911 traffic
County Net Radio Op		Monitors County Message and Command Nets, communicates with County EOC
ARK Radio Operator		Monitors CCC channel 7/27, communicates with ARKs. May call an ARK on their local channel.
Safety Officer	½ FTE	Adds the IDR / pandemic health component to the standard job.
Demob Manager	½ FTE	Collects and verifies all documentation is turned in, complete, and signed

FT = Full Time, PT = Part Time

Packet Op is previously identified and responds to C469 for general CUPEOC and CUP911 packet ops

**Packet Ops** will set up outside of C469. Network connectivity is established between the Packet Station and C469 directly or by WIFI. Setup includes:

- Sat Phone set up to make simulated ALT911 relay calls.
- VoIP phone
- Packet PC network access

0830: Open the Resource Net.

**NCO** takes check-ins. For each operator, they record the following information (recording method is at the discretion of the NCO):

1. Call sign
2. Availability for a field assignment
3. Closest ARK name
4. If they have a home buddy

Check-ins will be from all CARES members. It is not expected that the DOC, CCC coordinator, or Cupertino EM will check into the net. Anyone else on the frequency will be asked to stand by.

**DOC:** When DOC shows up, they proceed to establish the DOC desk inside City Hall, set up the network kit and confirm network connectivity with C469 by phone and the c469 Web App.

**The IAP** would be developed for the 2<sup>nd</sup> day and we would know who is coming back. It also allows us to fill in slots with folks who may just show up for the

event on the net. This means: we need to know who will be participating in the exercise.

**Shift Supervisor** starts making assignments per the IAP for members to proceed to field locations. Field Positions Available:

1. 6 ARKs / 6 voice, 6 packet = 12
2. 1 Fire station (SJ15) / 1 voice, 1 packet = 2
3. 1 Quinlan Shelter / 1 voice, 1 packet = 2
4. 1 rover team / 1 voice, 1 driver = 2

**NCO** logs all Assignments made.

**Field responders** proceed to perform their assignment.

**Field responders** make reports when they arrive, when they are set up.

09:15: **Shift Supervisor** assigns a Demob Manager and prepares for Demob.

10:00: **Demob Manager** processes returning members using COES 221 Demobilization Check Out form (DRAFT).

11:00: End field activity

All **Field teams** are back.

**Shift Supervisor** secures the exercise.

**C469 Operator** secures C469 operations, returns C469 to Service Center.

*End of response.*

## A Appendices

### A.1 Terms

ARK:	City-owned shipping containers located throughout the city that are stocked with emergency supplies to support a field-based ICS field response. Staffed by Citizens Corps.
CARES:	Cupertino Amateur Radio Emergency Services; provides backup and emergency communications to the City.
CCC:	Cupertino Citizen Corps; the Cupertino OES designation for the volunteer pool made up of members from Cupertino ARES, CERT, and MRC.
CERT:	Community Emergency Response Team; trained in light search & rescue, disaster medicine, fire suppression, animal care, and Help Desk.
COVID-19:	Coronavirus 2019, SAR-CoV-2
DOC:	Departmental Operations Center.
DPW:	Department of Public Works
EM:	Emergency Manager
EOC:	Emergency Operations Center; the central command and control facility responsible for carrying out the principles of emergency management, or disaster management functions at a strategic level in an emergency situation and ensuring the continuity of operation of the city.
EOP:	Emergency Operations Plan. The document that describes the methods, procedures, and authority for coordinating resources and personnel of a jurisdiction in responding to disasters.
EXPLAN:	Exercise Plan. This document; provides the instructions, guidelines and organizational information to all participants for the conduct of a specific exercise.
FLA:	First Look Area. A specific selection of streets in Cupertino on which an FLA Assessment will be made.
FSE:	Full Scale Exercise. An exercise is as close to the real thing as possible. It is a lengthy exercise which takes place on location using, as much as possible, the equipment and personnel that would be called upon in a real event.
IAP:	Incident Action Plan.
ICP:	Incident Command Post. A temporary physical location used for the purpose of on-scene incident command and management at the tactical level.
ICS:	Incident Command System. A people management system with clearly defined roles and functions, and with attributes or system features that are flexible and adaptable to both large and small incidents and events.
IDR	Infectious Disease Response, used to refer to the IDR plan and protocols in place during the COBVID-19 pandemic.
MRC:	Medical Reserve Corp. Volunteers that supplement the existing emergency and public health resources
NIMS:	National Incident Management System. Federally mandated method of managing emergencies adapted from California's SEMS.

OPAREA:	Operational Area. Intermediate level of government designed to support the local jurisdiction's response to disaster by providing access to the resources of the county, other cities and the state.
SEMS:	Standardized Emergency Management System. California's system for managing responses to multi-agency and multi-jurisdictional emergencies which includes the Incident Command System, Unified Command and the OpArea concept.