After Action Report
Creek Rising Communication Exercise
CUP-26-39T

Overview

Description:	Creek Watch Communications Exercise
Event Type:	Cupertino ARES Exercise
Event Name	Creek Rising Exercise
Activation No:	CUP-26-39T
Managing Entity:	Cupertino ARES
Event Date:	7 November 2026
Report Date:	14 November 2026
Report Revision:	1.2, **FINAL**
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Requirements for Reporting[1]

Completing an After-Action Report is part of the required California SEMS reporting process. The Emergency Services Act, Section 8607 (f) mandates that the Office of Emergency Management (OEM) 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 OEM within ninety (90) days of the close of the incident period as specified in the California Code of Regulations, Title 19, s2900(q)." Additionally, "Section 2450 (b) The after-action report shall, at a minimum, be a review of response actions taken, application of SEMS, suggested modifications to SEMS, necessary modifications to plans and procedures, identified training needs, and recovery activities to date."

Terms

AAR[2]:	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.
ARES	Amateur Radio Emergency Service, created by the ARRL, consists of licensed volunteers using their equipment to provide backup, auxiliary communications for public safety agencies and disaster relief organizations. See RACES.
CAP (FEMA):	Corrective Action Plan; FEMA; HSEEP[3] - actions identified during activations or exercises that are tracked to completion, ensuring that exercises yield tangible preparedness

[1] https://www.caloes.ca.gov/office-of-the-director/operations/planning-preparedness-prevention/planning-preparedness/after-action-corrective-action-reporting/
[2] https://preptoolkit.fema.gov/documents/d/cip-citap/after_action_review_user_guide_november_2023_f

improvements.

CARES:	Cupertino Amateur Radio Emergency Service - a volunteer organization of FCC-licensed amateur radio operators who will respond to requests from the city during times of emergencies. Their focus is on understanding risks facing the city and putting plans, communications processes, and tools in place to respond to these risks.
CCC:	Cupertino Citizen Corps - the City's umbrella organization for CARES, CERT, and MRC.
Comm 469, C469:	City of Cupertino Public Safety Communications Vehicle #469.
DOC:	Department Operations Center - manages the overall field CCC deployment; aggregates data to be passed to the EOC. Advises EOC Staff on CCC capabilities, readiness, and activities.
H&W:	Health & Welfare - used within the context of a Health & Welfare Check. This is usually a check of field teams to ensure they are OK.
NCO/NCS:	Net Control Operator / Net Control Station - the control function that ensures the efficient passing of messages between stations on the frequency.
OEM:	Office of Emergency Management
OTA	On The Air. Used in the context of OTA Training, these were training sessions where members could practice message passing ahead of the exercise.
PSAP:	Public Safety Answering Point; a 24/7 call center designated to receive emergency 9-1-1 calls (both wireline and wireless) and route them to police, fire, or emergency medical services.
SCCo:	Santa Clara County
RACES:	Radio Amateur Civil Emergency Service, created by the Federal Communications Commission, RACES replaces the conventional "Amateur Radio Service" during wartime or civil emergencies.

i. Background

Introduction

The purpose of an AAR is to analyze the management and response to an incident, event, or exercise by identifying the operational strengths to be maintained and promoted, as well as the areas that need improvement. The focus of this AAR is on the CARES exercise that was designed to test the Cupertino ARES tools and procedures at field sites throughout the city where CARES responders would develop and send Situation Status reports on the state of city creeks. This After-Action Report will be submitted to Cupertino OEM and SCCo RACES as a record of our findings, planned follow-up actions, and recommendations to the city.

Summary

Following the 1998 flooding along several Cupertino creeks, CARES began developing the Creek Watch process, including the tools and procedures needed to communicate creek conditions to the EOC through Situation Status reports. During this same period, Valley Water undertook several infrastructure improvements, upgrading creek beds, and culverts and bridges at major creek crossings. Subsequent

[3] https://www.fema.gov/emergency-managers/national-preparedness/exercises/hseep

changes in weather patterns, including periods of increasingly intense winter storms, reinforced the potential value of a coordinated volunteer Creek Watch capability.

In anticipation of potentially significant winter rainfall, CARES revisited and updated its Creek Watch procedures. This exercise was designed to evaluate the updated processes and communications tools, including the CUP ICS 213CW form, and identify operational gaps or changes in conditions since the process was originally developed.

The exercise deployed CARES responders to designated creek observation locations throughout Cupertino, where they evaluated conditions, prepared Situation Status reports based on simulated scenario injects, and transmitted those reports to the EOC. CARES members reported to the exercise staging area at Cupertino City Hall for check-in, briefing, and assignment distribution before deploying to their field locations. CERT members participated from their respective neighborhoods.

ii. Type / Location

Event Type:	City of Cupertino, Cupertino ARES Training Activation
Event Identifier:	CUP-26-39T
Event Name:	Creek Rising Communications Exercise
Location:	City of Cupertino

iii. Description of the Event / Drill / Exercise

Over the course of the exercise, the following objectives were tested:

1. Manage field responders assigned to specific locations throughout the city
2. Pass appropriate scenario messages to the EOC as situation status messages for a creek rising event.
3. Activate neighborhood CERT for message passing to the EOC by Quick Capture

Event resources came from the following organizations:

1. ***Cupertino ARES/RACES.*** CARES staffed 7 city Creek Watch field sites and Comm 469. Seventeen (17) CARES members participated during the 4-hour exercise.
2. ***Cupertino CERT.*** CERT responders operated from home and passed QuickCapture messages to EOC.
3. ***Cupertino CCC.*** The city's Citizen Corps Coordinator was on site to handle specific tasks related to overall resource management.

Performance to Objectives

Objective #1 *- Manage field responders assigned to specific locations...*

Objective Met

Field responders were assigned to designated creek observation locations throughout the city. Pre-event staging, assignment sheets, and briefing materials were distributed that supported the deployment. The Resource Net (TAC3) effectively managed responder travel to and from the EOC Staging. Lessons learned from the outbound net (EOC to assignment) were successfully applied to the inbound net (assignment to EOC).

Objective #2 *- Pass appropriate scenario messages to the EOC as situation status messages...*

Objective Met

Field stations successfully transmitted a total of 35 creek watch situation messages by voice. The Message net managed all message traffic (TAC7). Similar to what we do for Health & Welfare traffic, this net implemented a polling sequence to ensure the EOC received messages at the requested time. Each polling sequence consisted of 7 messages, each containing 8 required data fields, and required an average of approximately 16 minutes to complete. Lastly, as a side benefit of message polling, the Health & Welfare check was accomplished at the same time.

Key Findings

1. *Creek Water-Level Reporting Standards*.

Observation: The exercise demonstrated that water-level observations were reported using different reference points such as (i) existing depth markers, (ii) creek bank sides, (iii) bridge abutments, and (iv) culvert structures. Some observation locations lacked permanent water-level markers making consistent measurements difficult.

Assessment: Although field responders successfully passed creek situation messages, differences in reporting methods limited the ability to compare water levels across locations and assess the potential for approaching flooding. Because references were individually defined, this would further contribute to data consistency problems in the event a shift change occurred.

2. Field Resource Accountability and Buddy-Team Procedures.

Observation: The buddy system provided valuable operational and safety benefits. However, assigning two responders a common tactical call created confusion when team members travel independently, change assignments, or demobilize simultaneously. Resource tracking relied on a combination of ICS 309 logs and assignment lists, and simultaneous demobilization transmissions occasionally complicated resource tracking.

Assessment: Once at an assignment, resource management worked well and the message passing load was shared between team buddies. However, existing resource tracking procedures may be less effective when team members travel independently or simultaneously.

3. Message-Passing Standardization and Efficiency.

Observation: The exercise successfully demonstrated voice message passing by field number, and the dedicated Net Control scribe improved efficiency. The pre-exercise OTA Training that was held resonated with several drill participants who commented on its effectiveness and contributing to their personal comfort and success in the field.

However, some participants also identified variations in message length, transmission pacing, audio levels, and adherence to the defined reporting procedure. Some transmissions included unnecessary information, while others omitted the required “This is Drill-Traffic” identification.

Assessment: The fundamental message-passing process worked, but inconsistent operating techniques increased Net Control’s workload and occasionally reduced communications efficiency. These differences become more significant when message traffic increases.

iv. Chronological Summary of Event / Drill / Exercise

The following timeline is a high-level compilation from ICS214s, and other documentation submitted as part of this event. Not all events are recorded. See the individual ICS 214 Unit Logs for details.

Time	Description, Notes, Comments
Saturday 7 November	06:45 Arrived at Service Center to retrieve C469 07:05 Depart Service Center for the City Hall 07:11 Arrived at the City Hall 07:25 C469 Setup (Minimal) Complete 07:45 Staging opened for check-ins 08:00 Started Exercise Briefing 08:25 Briefing Complete, all responders received assignments 08:25 Opened the Event Resource Net (TAC3) 08:45 Started the Message Net (TAC7) 09:00 First message net poll sequence 10:50 Last poll sequence. 11:05 All field responders directed to return to the EOC; opened the Resource Net, opened Demob 11:10 Closed the Message Net 11:30 Closed the Resource Net 11:35 Closed Demob 13:10 C469 Departs City Hall for Service Center

v. Response at SEMS Levels (as appropriate):

The Field Response was made up of CARES and CERT responders. CARES staging was set up at the Cupertino City Hall for the safety and event briefing and distributing assignments.

The following items were noted:

- Seven 2-person field team assignments were made.
- The Two-Man Rule (buddy system) was in effect for all CARES field responders.
- Both the Resource Net and Message Net were established (Learning from CUP-25-31T).
- No additional outside agencies participated in the exercise.

vi. Interacting Systems, Agencies, and Programs

Notifications were made only to County Sheriff about this exercise. No other interaction occurred.

vii. Improvements, Conclusions, Corrective Actions:

This exercise validated our core operational capabilities while identifying opportunities for procedural refinement, scalability improvements, and equipment readiness actions. The following recommendations are made for corrective action.

Effective Practices to Retain

1. Continue the use of OTA Training both in general and prior to an exercise.
2. Retain the use of a dedicated Net Control scribe as an effective operating practice.

Creek Water-Level Reporting Standards

Issue: Differences in reporting methods limited the ability to compare water levels across locations.

1. Establish a consistent method for reporting water levels relative to potential channel overflow.
2. Review and update the 213CW Form and instructions to support more efficient data collection and passing (i.e.: option circling)
3. Coordinate with Cupertino Public Works to evaluate the use of permanent level reference markers at city-maintained creeks, culverts, and bridges.
4. Coordinate with the City's Emergency Manager and Public Works to establish reporting requirements that support operational decision-making.

***Field Resource Accountability and Buddy-Team Procedures*.**

Issue: Existing resource tracking procedures are less effective when team members travel independently or simultaneously.

5. Clarify buddy-team procedures, including individual identification, travel, and reporting.
6. Refine resource tracking and demobilization, evaluating the County Travel Tracking form, T-cards, or other methods.

Message-Passing Standardization and Efficiency.

7. Reinforce informal message-passing procedures through periodic on-air practice, emphasizing concise reports, proper transmission pacing, audio quality, and standardized reporting formats.

Conclusion

The Creek Rising Communications Exercise successfully demonstrated CARES' ability to deploy and manage field responders throughout Cupertino, observe creek conditions, and communicate situation reports to the EOC. Planning, training, and coordination contributed to an effective exercise, while the participation and adaptability of CARES volunteers reinforced the organization's ability to support the City during a potential flooding event.

The exercise also identified several opportunities for improvement. Inconsistent water-level reporting methods highlighted the need to better standardize field observations so that the information provided to the city is meaningful and actionable. Additional refinements to field resource tracking, buddy-team procedures, and message-passing practices would further improve operational effectiveness, particularly under more demanding conditions.

Overall, the exercise validated CARES' fundamental field deployment and communications capabilities while identifying practical improvements that can strengthen future operations. These findings reflect our continuing effort to refine the tools and processes we rely upon, improve our readiness, and better support the City and community when called upon.