

After Action Report

2018 Wildland Urban Interface Fire Threat



Cupertino
ARES/RACES

1. Overview

Description: Infrastructure Safety Assessment Drill
Event Date: 12-May-2018
Report Date: 27-June-2018
CARES Event: CUP-18-35T
RACES Event: CUP-18-35T
Control: Cupertino ARES/RACES
Report Revision: 1.4, **FINAL**
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Requirements for Reporting¹

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

AAR²: 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.

AAR/IP Improvement Plan; Identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion.

CARES: Cupertino Amateur Radio Emergency Service, ARES/RACES organization supporting

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>

² <https://training.fema.gov/programs/emischool/el361toolkit/glossary.htm>

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.

Comm 469: 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. Advices EOC Staff on CCC capabilities, readiness, and activities.

NCO/NCS: Net Control Operator / Net Control Station. The control function that ensures the efficient passing of messages between stations on the frequency.

RRO: Radio Room Operator. The position that originates and receives messages for exchange with field responders.

SCC: Santa Clara County. Used in reference to County RACES

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 area that has not received a lot of attention is with the threat of Wildland Urban Interface Fire. We recognized that California experienced an incredibly tough WUI fire season last year, and that such a risk is real for us given that Cupertino sits up against foothills that have not burned in over 100 years.

With this as context, CARES developed, planned, and tested a response for how we would possibly observe and report adverse conditions to the EOC that would be caused by a wildland fire threat.

The purpose of this exercise was to test the field response to a wildland fire threat as performed by Cupertino Citizen Corps ,specifically Cupertino ARES/RACES and CERT.

The City of Cupertino authorized this exercise with training activation number CUP-18-35T. This report covers the activities undertaken by CARES and the findings from that exercise.

ii. Type / Location of Event / Drill / Exercise

Event Type: City of Cupertino, CARES Training Activation

Event Identifier:CUP-18-35T

Event Name: Wildland Fire Threat Exercise

Location: City of Cupertino

iii. Description of the Event / Drill / Exercise

CARES exercise objectives:

1. Exercise resource net concepts and procedures.
2. Exercise message net concepts and procedures.

3. Exercise emergency voice and packet communications message handling procedures.
4. Test deployment of a Cross-band repeater.
5. Test the activation procedure (Conf Call, IAP, Check-in, Briefing).

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. Twenty-three (23) CARES members participated in the test.
2. Cupertino CERT: Responsible for partnering with CARES Field Responders on all field assignments. Four (4) CERT members participated in the test.
3. Cupertino City Staff: Responsible for simulating all EOC operations.

The drill was initiated as a pre-announced event with CARES and CERT members responding to the EOC for safety briefing and assignment.

Performance against Objectives:

1. Exercise resource net concepts and procedures.

Results: **SATISFACTORY**. All field responders were successfully tracked from the EOC to their assignment, and back again. Emphasis was placed in the Safety Briefing on the importance to not lose anyone. Additionally, the SCC RACES Travel Tracking Form was used to manage their progress en route to their assignment.

2. Exercise message net concepts and procedures.

Results: **NEEDS IMPROVEMENT**. Almost everyone performed reasonably well with writing succinct messages. Message passing reflected the need for more clarity with process and content. As a result, 54 messages were passed between 8 field locations and the EOC. However, the message net was congested with backlogs developing. Need a plan on how to handle an overload of voice traffic.

3. Exercise emergency voice and packet communications message handling procedures.

Results: **SATISFACTORY**. The Smoke Report was adapted from CAL FIRE's fire spotting procedures and introduced for this exercise. As a first attempt with using this report, all reports were successfully passed, with clear areas for improvement identified. Overall, the form worked.

4. Test deployment of a Cross-band repeater.

Results: **NEEDS IMPROVEMENT**. A cross-band repeater was assembled and deployed for the first time. The intent was to ensure adequate coverage with field stations in western Cupertino, west of Regnart Ridge. Some problems were identified with system access; procedural changes were identified. On completion of an internal review, cares will formalize and adopt this task as part of the CARES response.

5. Test the activation procedure (Conf Call, IAP, Check-in, Briefing).

Results: **SATISFACTORY**. A formal effort was made on ensuring the activation procedure went as smooth as possible. An Incident Action Plan was developed. The check-in process and subsequent assignment process worked better than expected. The briefing was satisfactory. The pre-event Conference Call was not included in this exercise.

iv. Chronological Summary of Event / Drill / Exercise

CARES ran this exercise under activation number CUP-18-35T. The following is a summary of the activities as reported on ICS-214's 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	Set up Comm 469 at City Hall
0730	Volunteer check-ins begins
0800	Safety Briefing, make field assignments
0830	Resource Net on the air
0840	All field station assignments made, first responder departs the EOC for their assignment
0856	Last field responder departs the EOC for their assignment
0856	Message Net on the air
0855	Comm 1629 on station at Stevens Canyon Cal Fire Station
0907	First message (#1) passed to the EOC
0921	All field responders at their assignment. Secured the Resource Net
1110	Last message (#54) passed to the EOC
1115	End of Field exercise. All field responders return to the EOC. Secured the Message Net
1122	Resource Net on the air
1146	All field responders at the EOC. Secured the Resource Net
1150	Start Debrief
1300	End of Debrief

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 and CERT members responded from the EOC to assigned locations per the event's staffing requirements. The following specifics are noted:

- The Two-Man Rule (buddy system) was in effect for all field responders.
- Eight field assignments were staffed with at least one CARES member and a CERT member when available.
- Fifty-four (54) messages were passed over a 2 hour 15 minute period.
- Field Responders transitioned from the Resource Net to the Message Net and back without issue.
- The CCC DOC was staffed, and successfully received and plotted items of interest for the EOC as field reports were passed in.
- CAL FIRE participated in the exercise by deploying Comm 1629 to CAL FIRE Station 23.

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.

Smoke Report and Roll-up Process

A review of the Smoke Reporting process was presented to the membership at the May 2018 CARES General Meeting. The key success factors for this exercise were:

1. Ember Watch Teams could identify smoke and ember events and characterize it per their observations.
Results: Reports were developed based on a literal description of what the field responder might see. Compass bearings to a smoke sighting were pre-determined and synchronized with other Lookout teams as described in the injects. Sighting tools were limited to what was on hand, namely a Smartphone compass apps. Nothing like an Osborne Fire finder was used.
2. Ember Watch Teams could create a smoke report and efficiently transmit it to the EOC.
Results: The Smoke Report Form used for this exercise falls under the category of a "structured report," similar to what CARES uses for its PSA reporting. This was a prototype message form that performed reasonably well given this was the first time it was used. Several process improvements were identified and will be considered once a decision is made to incorporate this form into the CARES forms cache.
3. The DOC could roll up field observations and reports to develop an effective Common Operating Picture.
Results: The DOC received field reports passed in from Comm 469 of all messages received from the field. Geospatial-related reports were captured and plotted on an E-Size printout of the "USGS Cupertino Quadrangle California 7.5-Minute Series" map. With this map and employing manual map plotting and marking tools, a reasonable picture emerged that captured the essence of what was going on in the field.
4. The Information hand-off from the DOC to the EOC was effective and seamless.
Results: CCC recognizes that the use of a manual mapping solution is what we will use during the initial states of an event, with the goal to shift to the City GIS solution once city staffing is available. For this exercise, the handoff was limited to the EOC staff inspecting the map as it was being created by the DOC.

Western Cupertino Communications Coverage

1. A cross-band repeater system was developed and put into service on Regnart Ridge (900ft ASL). It was set up to link the CARES Message Net on TAC2 (146,460, T=151.4) with CARES TAC4 (441.000, CT=151.4), essentially extending the message net on 440 to western Cupertino. Power for both cross-band channels was set to 10 Watts. The automatic ID was configured to "K6KP". Equipment package included (i) Kenwood TM-V71, (ii) 35AH AGM Battery, and a (iii) 2m/440 dual band omni antenna. TAC2 was used by stations operating east of Regnart Ridge. TAC4 was used by stations operating west of Regnart Ridge.
2. All western field stations had TAC4 correctly set with CT/Tone Squelch. However, because some western stations could reach the EOC on TAC2 and elected to do so, there was occasional confusion as to why a particular station was not heard on a specific frequency. Cause:

inadequate instructions when making field assignments, that is, naming the frequency that a specific station should use.

3. There was occasional DMR (Digital Mobile Radio) interference on the cross-band frequencies. While it is believed to have originated on the TAC2 side, this is inconclusive and requires further investigation. Recommendations have been made to handle this in the future.

CAL FIRE Participation

1. CAL FIRE participated in the exercise by using this event as a training opportunity on the CAL FIRE Comm 1629 vehicle.
2. CARES deployed a field team to co-locate with Comm 1629 at CAL FIRE Station 23, simulating this location as a canyon evacuation observation and checkpoint.
3. To further enhance future outcomes, a tighter joint operation needs to be defined to ensure the best method for information sharing in the event this scenario was to actually occur.
4. Overall, having CAL FIRE participation in this exercise was mutually beneficial by helping CARES understand the role they play, and helping them explore linkages that could be established with local RACES groups.

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

- Responders were spread over a larger area making this deployment more realistic.
- Message passing started out rough but improved as the event progressed.
- Good radio coverage from De Anza Parking garage.
- Split the assignment work between the 3 team members of our field team to cover logging, message writing, and radio ops. A three-person team was ideal.
- Message hand-offs from Comm 469 to the DOC.
- Good setup at the Quinlan Shelter.
- The level and content of traffic added to the excitement of the exercise.
- Good net control and throughput on the Message Net.
- Great experience. Learned a lot.
- No stuck mics!

What didn't work / needs improvement

- Some message traffic was passed too fast.
- Smartphone compass apps were impacted by the De Anza parking garage solar panel metal stanchions.
- Some urgent traffic ended up waiting for routine messages to be passed. Need to poll for messages by priority.
- When checking in/out, or traveling as a team, need only one station to ID.
- Smoke Report needed to be prioritized as Urgent Traffic.
- There was some confusion with the radio settings and getting on TAC4.
- Several stations observed what sounded like DMR transmissions on the cross-band frequencies. Look at Tone Squelch on both cross-band channels.
- Need to co-locate with partner agencies when the situation presents itself.
- Needed more announcements of "This is Drill Traffic".
- Need to consider Comm 469 staffing options to rotate positions; if this was real, this would be too intense for an 8-12 hour shift.

A. Corrective Action Plan

This CAP is developed specifically for CARES as a result of 2018 Wildland Fire Threat Exercise (CUP-18-35T) conducted on 12 May 2018. These recommendations draw on the results of the After Action Debrief. The CAP has been formatted to align with the CARES Task List and FEMA’s Corrective Action Program System.

Critical Task	Element	Description	Corrective Action	Responsible Organization	POC	Start Date PRIORITY	End Date
Conduct Field Comm Ops	Planning	Develop and maintain training programs for Shift Supervisor, Operations Staff	1. Develop outline for Shift Supervisor Training; evaluate CARES Staff	CARES		Med	
Conduct Field Comm Ops	Sys/Tools	ICS 205 Communications Plan	2. Add cross-band entry; define configuration (ID, CT, etc.), set all repeaters to CT/TSQL	CARES	Jim	Med	
Conduct Field Comm Ops	Sys/Tools	ICS 205 Communications Plan	3. Test 1 frequency for Narrow-band	CARES			
Conduct Field Comm Ops	Sys/Tools	Cup ICS 213SF Message Form (Short Form)	4. Revise and update	CARES	Jim	Med	
Event Mgmt	Personnel	Shift Supervisor Qualification	5. Phase 1: develop skills for qualification	CARES		Med	
Event Mgmt	Sys/Tools	Shift Supervisor Playbook	6. Revise and update	CARES	Ken F	High	
Resource Mgmt	Planning	Develop Resource Management policies and procedures	7. Develop staffing levels based on different response types. a. Review field team sizes based on the WUI Fire experience (3?) b. Review Comm 469 team size based the need for shift changes (SS, R/NCO, M/RRO, XSC/RRO) c. Formalize rotation of remote M/NCO.	CARES	Jim	High	
Resource Mgmt	Planning	Develop CARES Resource Readiness List, methodology	8. Agree on the concept. Define process for updates, distribution	CARES	Judy	High	
Resource Mgmt	Planning	Define ICS 204 Assignment List for anticipated deployment scenarios	9. Finalize for WUI Fire Scenario.	CARES		Med	
Resource Mgmt	Planning	Define ICS 204 Assignment List	10. Define for Earthquake scenario	CARES	Jim	High	

Critical Task	Element	Description	Corrective Action	Responsible Organization	POC	Start Date PRIORITY	End Date
		for anticipated deployment scenarios					
Resource NCS	Planning	Develop Resource Net Control tools, processes, and procedures	11. Develop 1st pass at NCS Handbook	CARES	Judy	High	
Resource NCS	Planning	Develop Resource Net Control tools, processes, and procedures	12. Formally adopt SCC RACES Travel Tracking Form for CARES use	CARES	AECs	High	
Message NCS	Planning	Develop Resource Net Control tools, processes, and procedures	13. Develop 1st pass at NCS Handbook. include Queuing, Prioritization	CARES	Judy	High	
Ember/Smoke Watch Ops	Planning	Develop Ember/Smoke Watch tools, processes, and procedures	14. Adopt this task.	CARES		Low	
Ember/Smoke Watch Ops	Planning	Develop Ember/Smoke Watch tools, processes, and procedures	15. Review, finalize, adopt Cup ICS 213SR Message (Smoke Report) Form	CARES		Low	
Ember/Smoke Watch Ops	Planning	Develop Field observation tools strategy and acquisition	16. Investigate sighting methods and tools (Solocator? Osborne Fire Finder? Similar?), maps	CARES		Low	
Ember/Smoke Watch Ops	Planning	Develop response relationships, scenarios with Fire Agency partners	17. Follow up with CAL FIRE; review the exercise results; develop next steps	CARES		Low	
Cross-band Ops	Planning	Develop Cross-band deployment policy and procedures	18. Develop deployment policy, configurations.	CARES		Med	
Cross-band Ops	Planning	Develop Cross-band deployment policy and procedures	19. Add to Resource Readiness List (ops w/ equipment)	CARES		Med	
Cross-band Ops	Planning	Develop Cross-band repeater system and procedure	20. Retest to assess DMR interference TAC2, TAC4. does CT resolve?	CARES		Med	

End of Report.