

2014 Wildland Fire Communications Drill Prep

1 May 2014
Jim Oberhofer KN6PE

Cupertino ARES/RACES



Agenda

1. Drill introduction – what's the plan?
2. Drought update – any changes?
3. Our 17-May scenario
4. What's our assignment
5. Operating on the net refresher
6. Message Handling refresher



Wildland Fire Drill Introduction

Wildland Fire Scenario, May 17, 2014

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, all priorities, between deployed field units and the EOC / Comm Van.
4. Exercise Comm Van to DOC information handoffs.
5. Manage information using OES documentation procedures and tracking methods.



Wildland Fire Drill Introduction

Wildland Fire Scenario, May 17, 2014

Concept

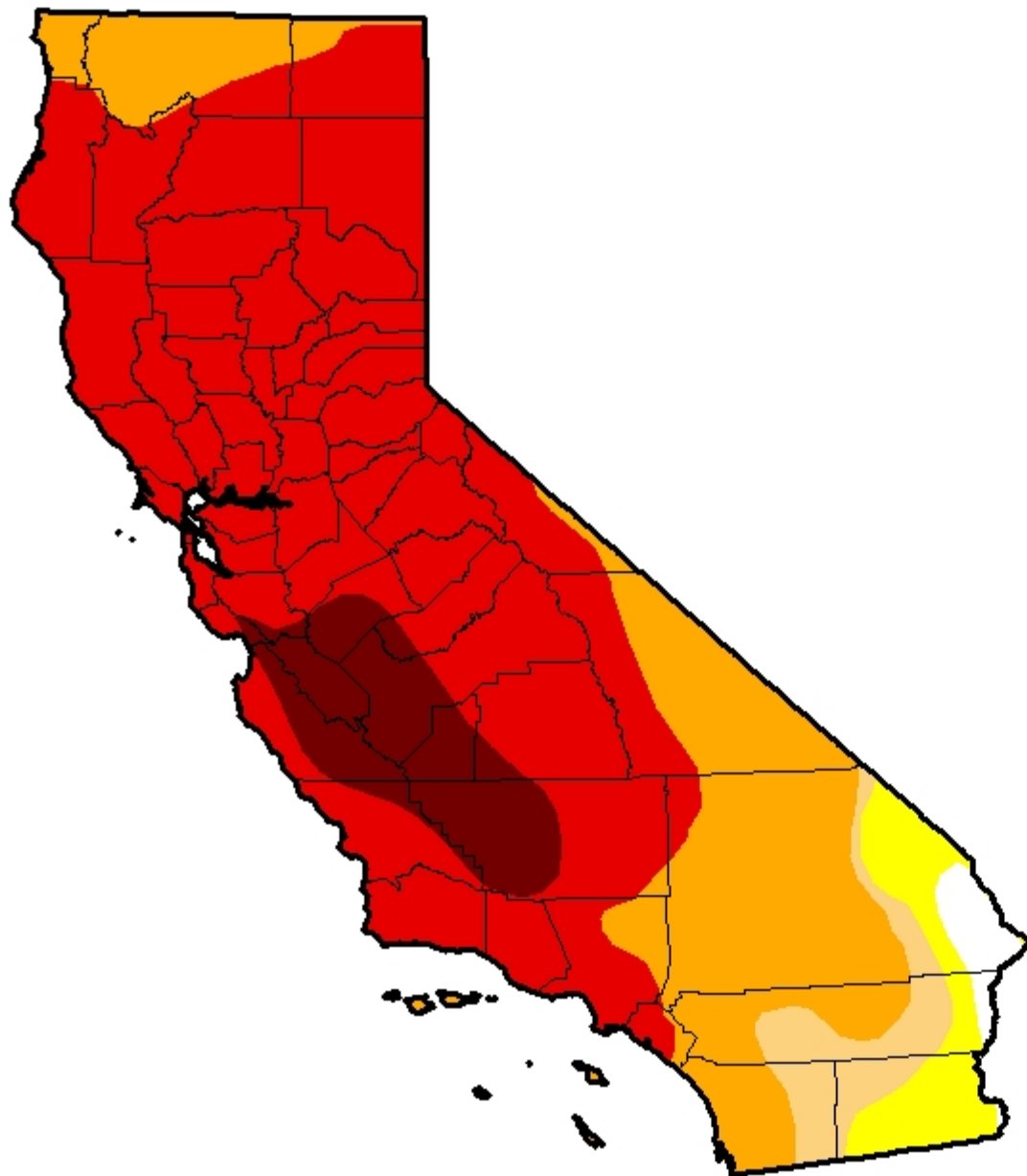
This will be a communications functional exercise based on a wildland fire event that indirectly threatening the City.

1. The exercise will occur over a 4-5 hour period on Saturday May 17, 2014.
2. The City EOC will be activated with minimal (if any) City staff to receive and originate simulated traffic, log situation status, and oversee the response. The CCC DOC will simulate the EOC response as necessary.
3. Field responders will be deployed to specific locations that align with the scenario.
4. Communications assignments are made based on the CARES response model, resources, and priority.
5. Because of the number of field positions that could be staffed, non-CARES Buddies will be encouraged.
6. Field message traffic will be based on timed scripted messages and simulated interactions with other responders.
7. Simulated OpArea traffic will be developed and sent to County.



U.S. Drought Monitor California

January 28, 2014
(Released Thursday, Jan. 30, 2014)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.43	98.57	94.18	89.91	67.13	8.77
Last Week <i>1/21/2014</i>	1.43	98.57	94.18	89.91	62.71	0.00
3 Months Ago <i>10/29/2013</i>	2.66	97.34	95.98	84.12	11.36	0.00
Start of Calendar Year <i>12/31/2013</i>	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year <i>10/1/2013</i>	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago <i>1/29/2013</i>	34.20	65.80	47.18	21.57	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC



U.S. Drought Monitor California

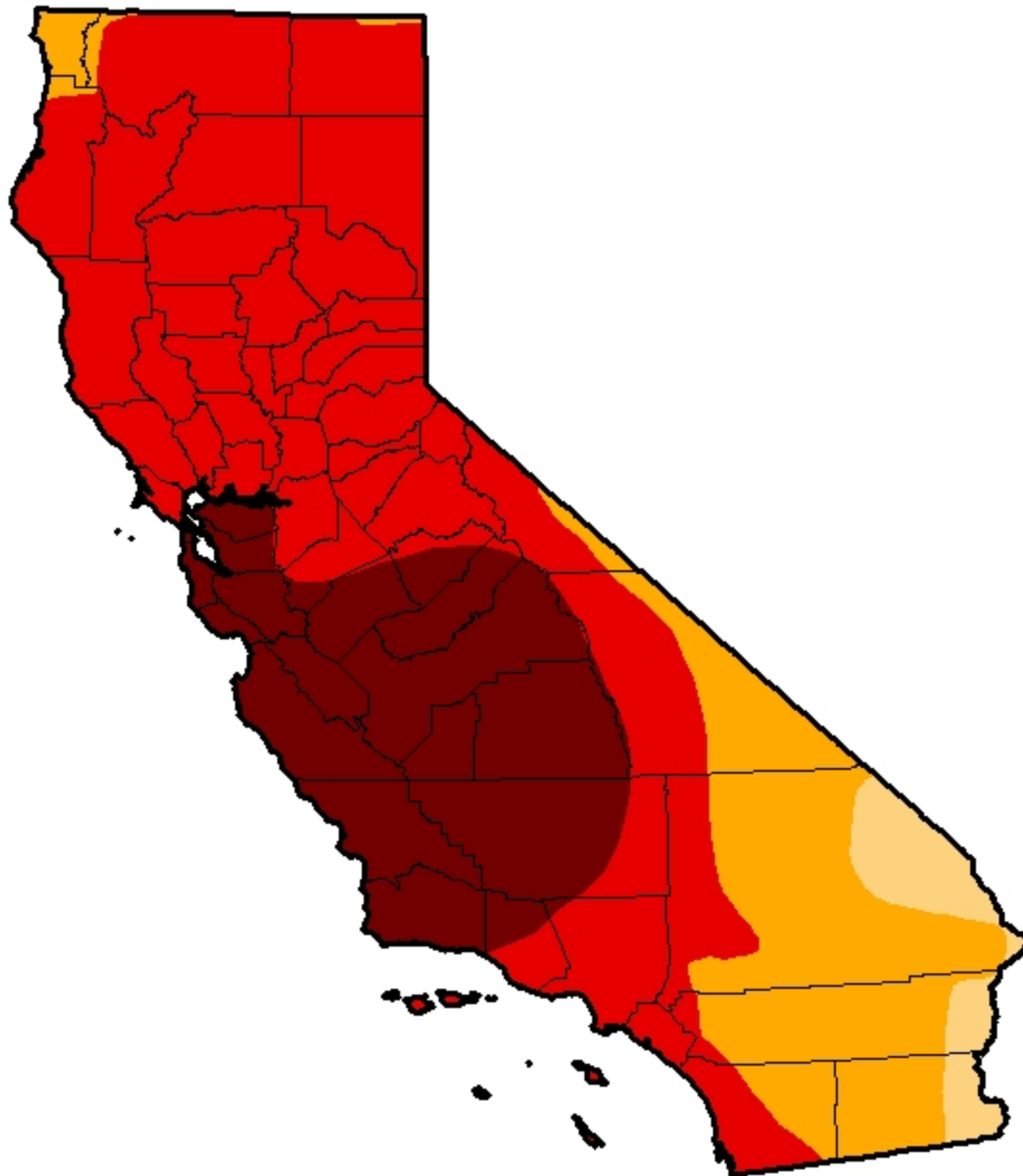
April 22, 2014

(Released Thursday, Apr. 24, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	96.01	76.68	24.77
Last Week <i>4/15/2014</i>	0.00	100.00	99.80	95.21	68.76	23.49
3 Months Ago <i>1/21/2014</i>	1.43	98.57	94.18	89.91	62.71	0.00
Start of Calendar Year <i>12/31/2013</i>	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year <i>10/1/2013</i>	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago <i>4/23/2013</i>	2.84	97.16	63.42	30.00	0.00	0.00



Intensity:

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- D1 Moderate Drought
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- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

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NCDC/NOAA



<http://droughtmonitor.unl.edu/>

Stevens Creek Reservoir, 27 April 2014



Newsroom

News Releases

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[Download CAL FIRE logo \(1.4M JPG\)](#)

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APRIL 2014

- [Strong Winds Prompt CAL FIRE Crews to High Alert](#)
- [CAL FIRE Continues to Increase Staffing in Northern California](#)
- [CAL FIRE and National Guard Train for Fire Season](#)
- [CAL FIRE Urges Homeowners to Maintain Defensible Space - Inspections Begin Statewide](#)

MARCH 2014

- [CAL FIRE Increases Staffing As Fire Threat Expands](#)
- [CAL FIRE Moves to Peak Staffing in Southern California](#)

FEBRUARY 2014

- [Statewide Arbor Week 2014 Poster Contest Winners Announced](#)
- [Time Change Brings Reminder to Check Smoke Alarms](#)
- [Winners of 2014 California Arbor Week Poster Contest Unveiled](#)
- [CAL FIRE Receives FAA Award for Third Year in Row](#)
- [CAL FIRE Increases Firefighter Staffing in Central Valley - Recent Rain Not Enough to Combat Drought Conditions](#)
- [CDPH Approves \\$250,000 for Willits Water Supply - CDCR and CAL FIRE Provide Additional Resources](#)
- [CAL FIRE Increases Firefighter Staffing in Tulare County](#)

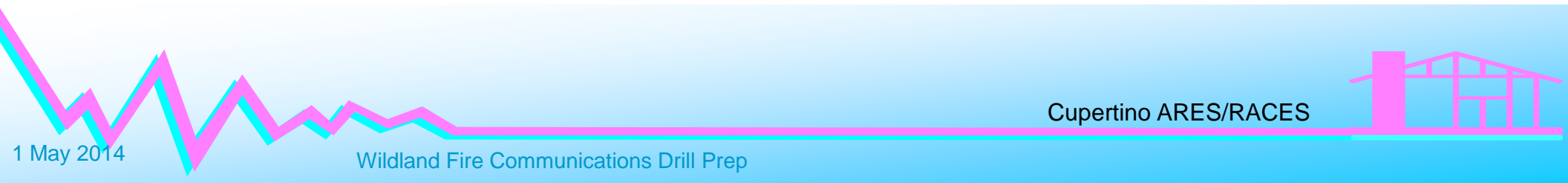
JANUARY 2014

- [Drought Prompts CAL FIRE to Increase Statewide Staffing](#)

2014 Wildland Fire Drill

***** THIS IS DRILL TRAFFIC ****

The City is threatened by a wildland fire approaching from the Southwest.



Cupertino ARES/RACES

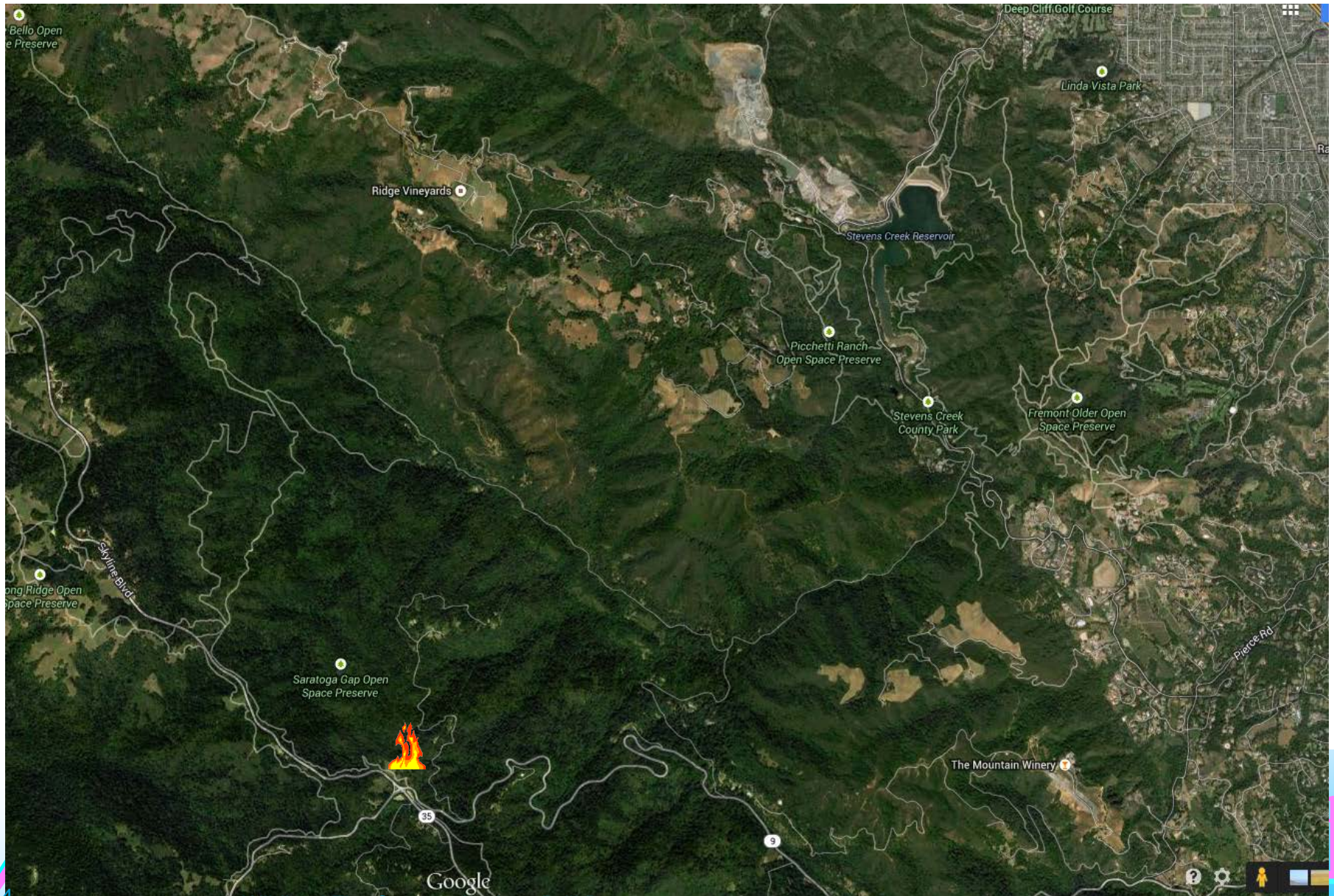


Wildland Fire Communications Drill Prep

1 May 2014

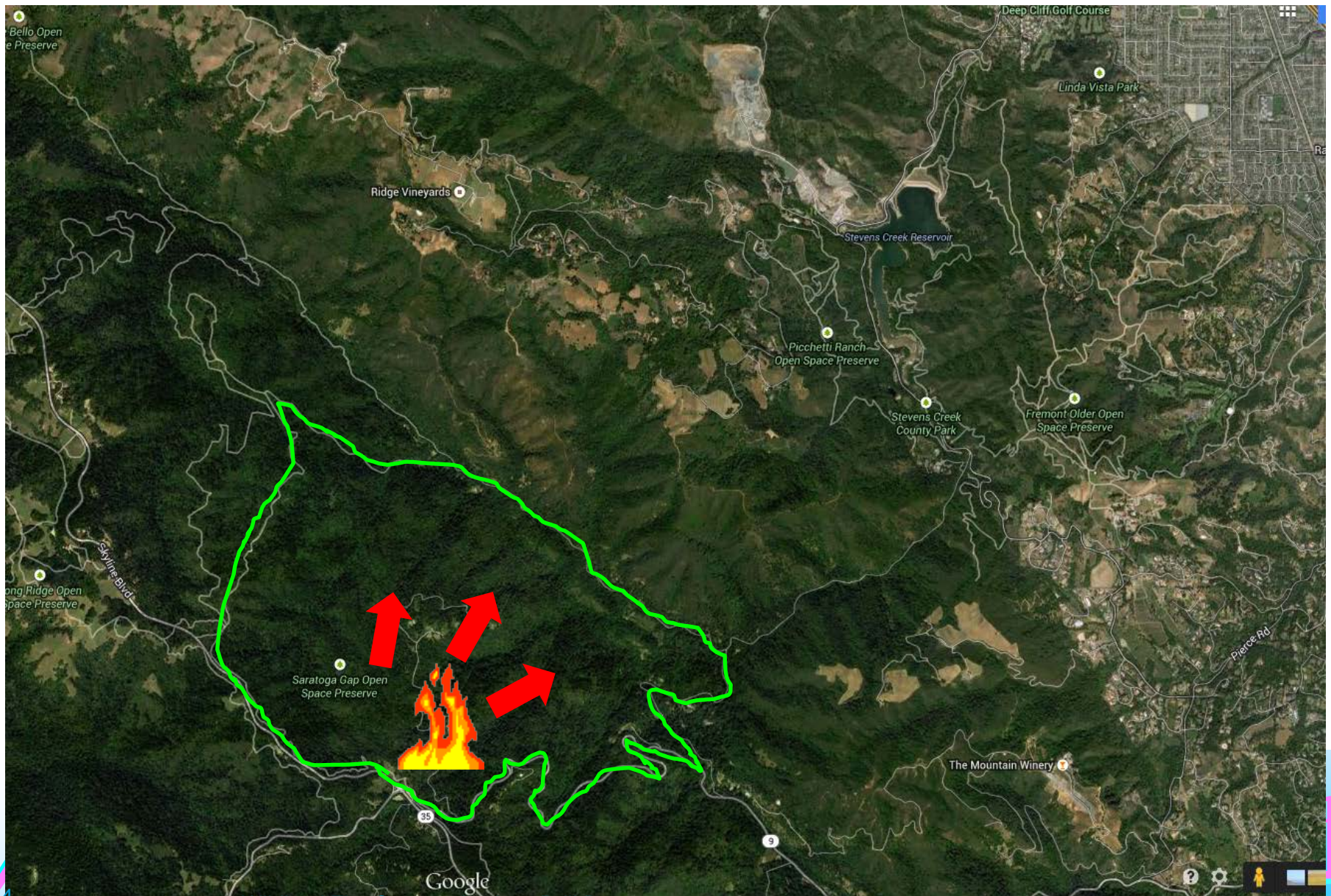
Tuesday Night

Fire Starts at Saratoga Gap



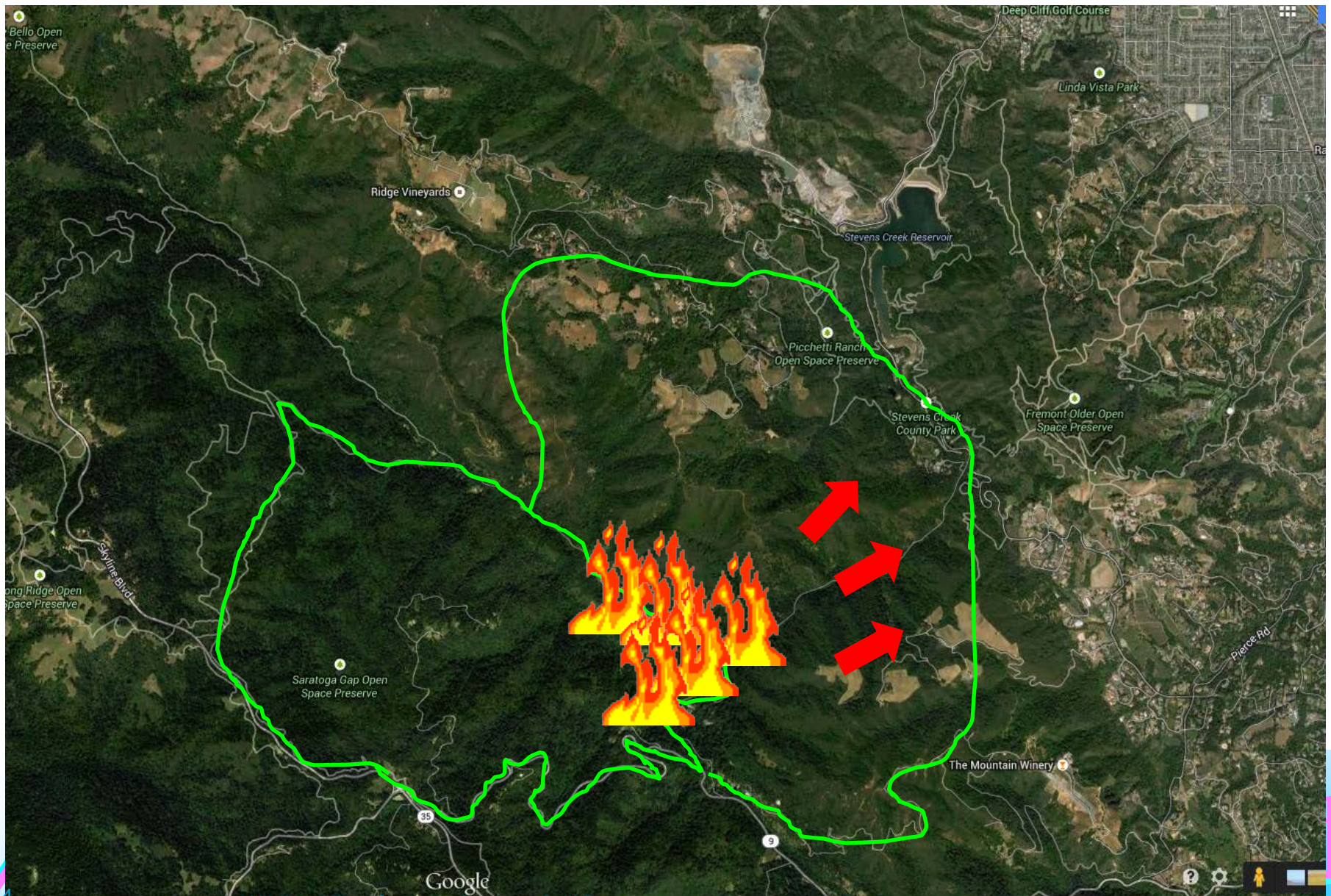
Wednesday

Cal Fire works to contain Southwest of Stevens Canyon Road



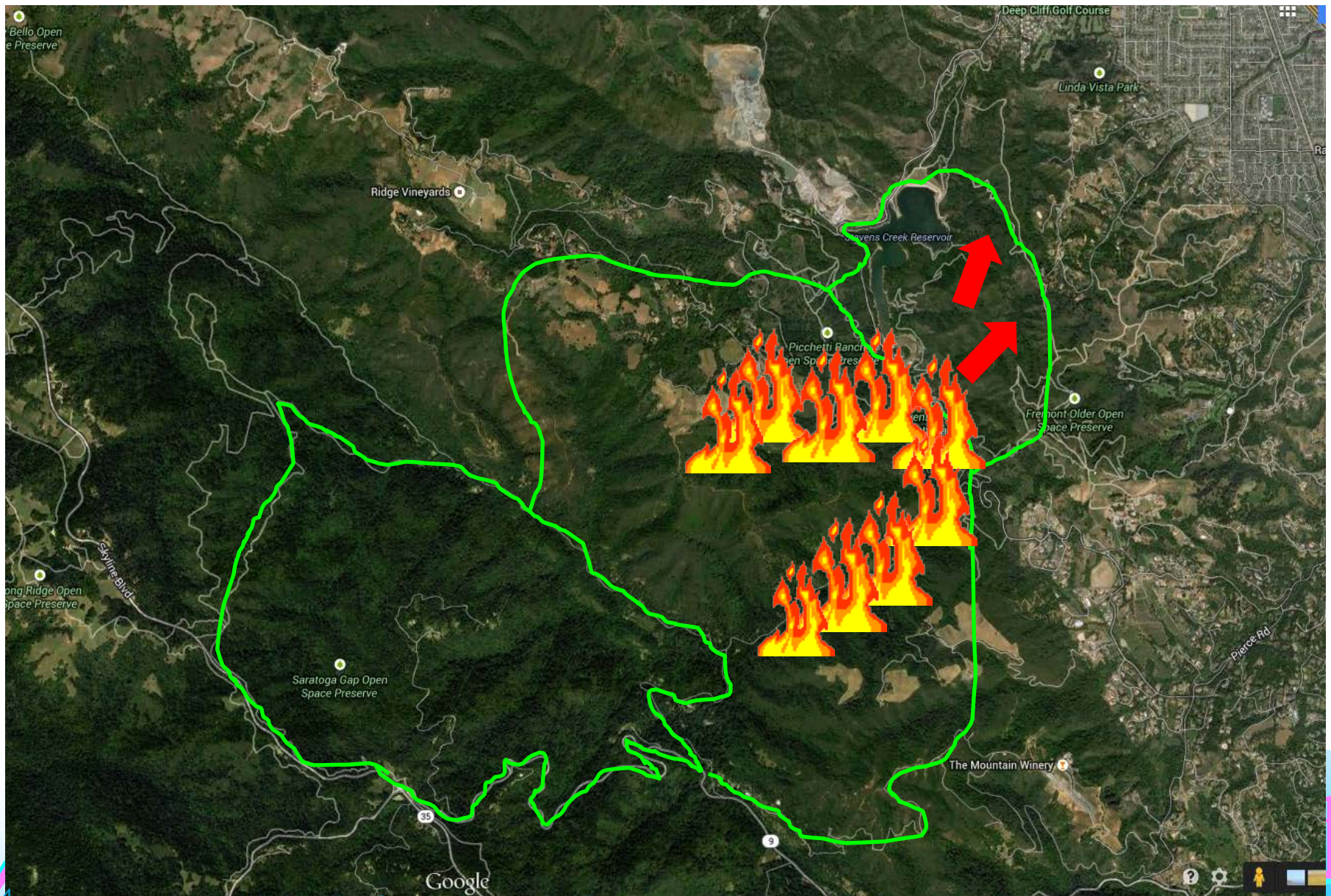
Thursday

Fire pushes down Stevens Canyon Road toward Mt Eden Road



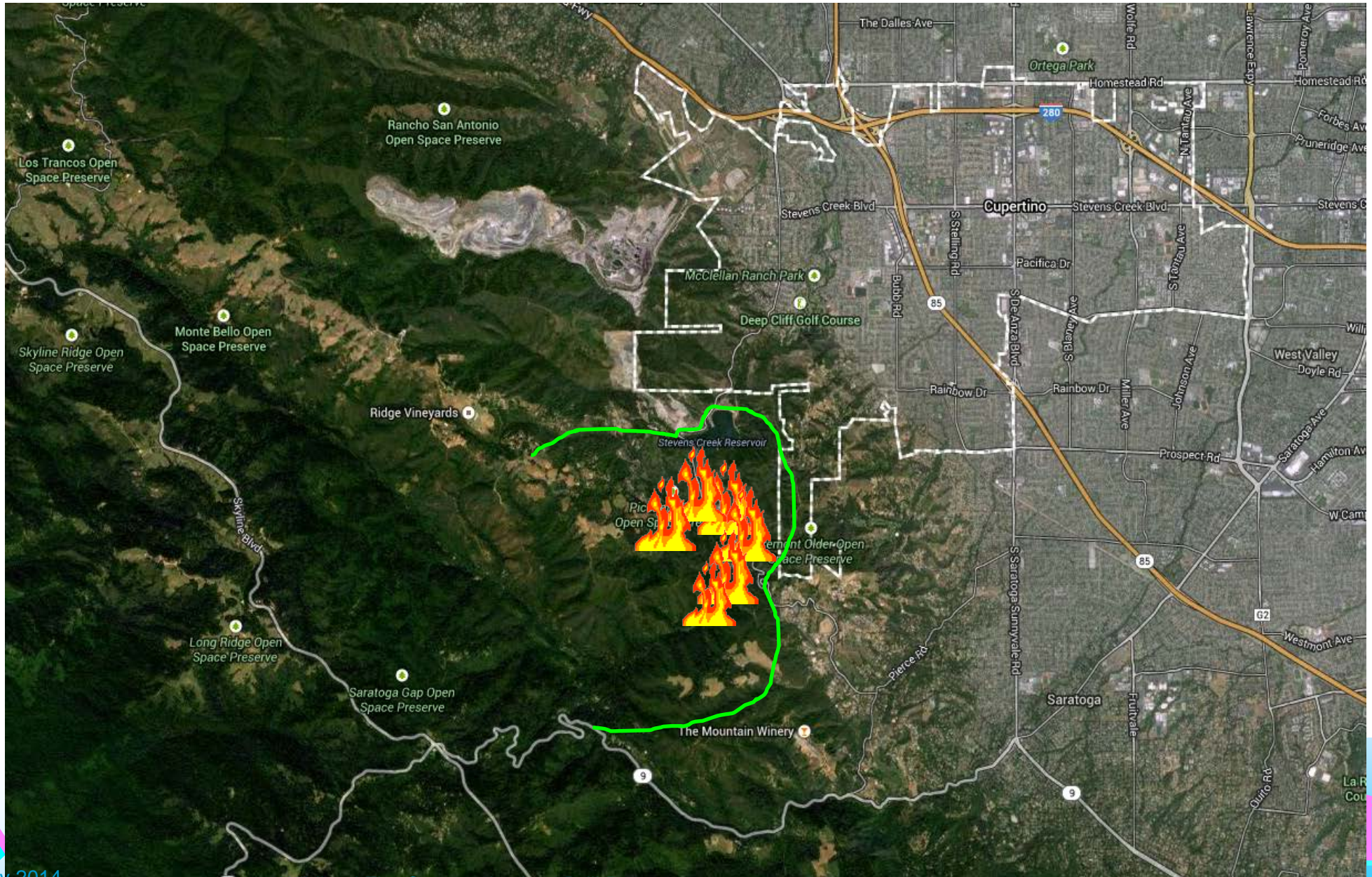
Friday

Fire crosses Stevens Canyon Road and approaches Cupertino



Saturday 06:00

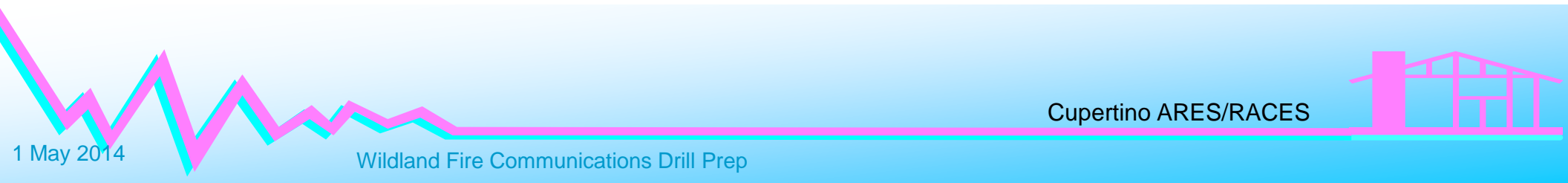
Cal Fire tries to contain fire West of Coyote Ridge Trail



Weather Conditions

Wildland Fire Scenario

1. Weather conditions are clear; winds are out of the Southwest.



Who are the players?

Wildland Fire Scenario

Cal Fire	<ul style="list-style-type: none">• Responds to and fights fires on public lands, the water shed, and privately-owned wildlands
County Fire	<ul style="list-style-type: none">• Responds to fights structure fires within their jurisdiction• Responds to medical emergencies
County Sheriff	<ul style="list-style-type: none">• Handles traffic control, road closures, evacuations• Maintains law and order
Public Health	<ul style="list-style-type: none">• Monitors air quality
Cupertino EOC	<ul style="list-style-type: none">• Staffs the EOC, monitors the situation• Provides community information• Makes decisions that serve the best interest of its residents• Supports the fire suppression effort with material, logistical support, and resources
Citizen Corp	<ul style="list-style-type: none">• Provides CERT, Medical, and Communications resources as needed to support the City and served agencies



What does the City need? (our assumption)

Wildland Fire Scenario

What they need	What it includes	How do they get it
Understand the situation outside the city	<ul style="list-style-type: none">• Threat assessment; fire location, speed and direction• Weather conditions, field conditions, extended weather forecast• Mitigation plans	<ul style="list-style-type: none">• SCCFD, Cal Fire briefings• City Agency Rep at the Fire ICP• Monitor Cal Fire, SCCFD radio frequencies• Commercial news outlets
Know about conditions in Cupertino	<ul style="list-style-type: none">• Smoke, embers, fire starts• Traffic conditions on city streets• Evacuations, street closures, shelter status, animal evacuations• Community welfare	<ul style="list-style-type: none">• County Sheriff & Fire• Observations and reports from CCC in the field• Resident phone-in reports• Social media



CARES Response – what we generally do

Wildland Fire Scenario

1. Preliminary Safety Assessment	CARES collects and reports information about the state of the city immediately after a city-wide emergency or disaster occurred.
2. Field Response	CARES members respond and operate at a field assignment during a declared emergency.
3. Infrastructure Safety Assessment	CARES observes and reports on selected Cupertino critical facilities that are deemed to be important to the City or other Agencies.
4. EOC Support	<ul style="list-style-type: none">• Staff the Comm Van / Radio Room• Provide situation roll-up of field reports



CARES Response – what we would do in this case

Wildland Fire Scenario

1. Preliminary Safety Assessment	CARES collects and reports information about the state of the city immediately after a city-wide emergency or disaster occurred.
2. Field Response	CARES members respond and operate at a field assignment during a declared emergency. <ul style="list-style-type: none">• Ember watch / Ember patrols• Shadows (Sheriff, Agency Rep, Cal Fire, County Fire, City officials, others)• Shelter communications
3. Infrastructure Safety Assessment	CARES observes and reports on selected Cupertino critical facilities that are deemed to be important to the City or other Agencies.
4. EOC Support	<ul style="list-style-type: none">• Staff the Comm Van / Radio Room• Provide situation roll-up of field reports



Possible Communications Assignments

Wildland Fire Scenario

Field Assignments

1. Ember Watch, fixed locations
2. Ember Patrol, mobile
3. Sheriff Shadow
4. Cal Fire Base Camp
5. County Fire Shadow
6. Quinlan Center Shelter
7. Key road closures, checkpoints
8. Others?

EOC Assignments

1. Comm Van: 1 SS, 1 RRO, 1 Resource NCS
2. Message NCS (remote)
3. Situation Status

DOC

1. DOC staff



Ember Watch – what is it?

definition: ember watch

1. A field assignment where lookouts are stationed at elevated locations to view an area of interest; the task is to watch for and report possible fires that may arise from air-borne ember drops.
2. This can also be implemented as an Ember Patrol, where the observations are made from a vehicle.
3. Responders are looking for...
 - i. first signs of smoke as an early indicator of a fire, and
 - ii. signs of air-borne embers.
4. Reports are passed to the City EOC.



Smoke... what to look for

Ember Watch – what is it?

definition: smoke, described in terms of color, thickness, and vertical rise.

1. Color: can indicate the temperature.

- **Light Smoke**

- A fire with cooler combustion or one that doesn't burn as efficiently; yields less-pure forms of carbon.
- This smoke tends to reflect light, making the smoke look white.
- Burning grass (burns fast), or initial stages of a bigger fire

- **Dark or Black Smoke**

- A hotter fire that converts more fuel into carbon, and forms tiny particles that absorb light.
- This smoke appears in the sky as black smoke.
- Burning trees, other wooden structures

2. Thickness: Light, Medium, Heavy

3. Vertical Rise: in columns, drifting, blowing



Smoke... what to look for

Ember Watch – what is it?

Grass fire on I-10



Cupertino ARES/RACES



Smoke... what to look for

Ember Watch – what is it?

Brush Fire



Smoke... what to look for

Ember Watch – what is it?

House Fires



Embers... what to look for

Ember Watch – what is it?

definition: Ember

1. A glowing, hot coal made of greatly heated wood, coal, or other carbon-based material that remains after, or sometimes precedes, a fire.
2. Blowing embers are tough to detect during the day, and may be more visible against a dark sky.



Santana Row Fire Facts, 2002

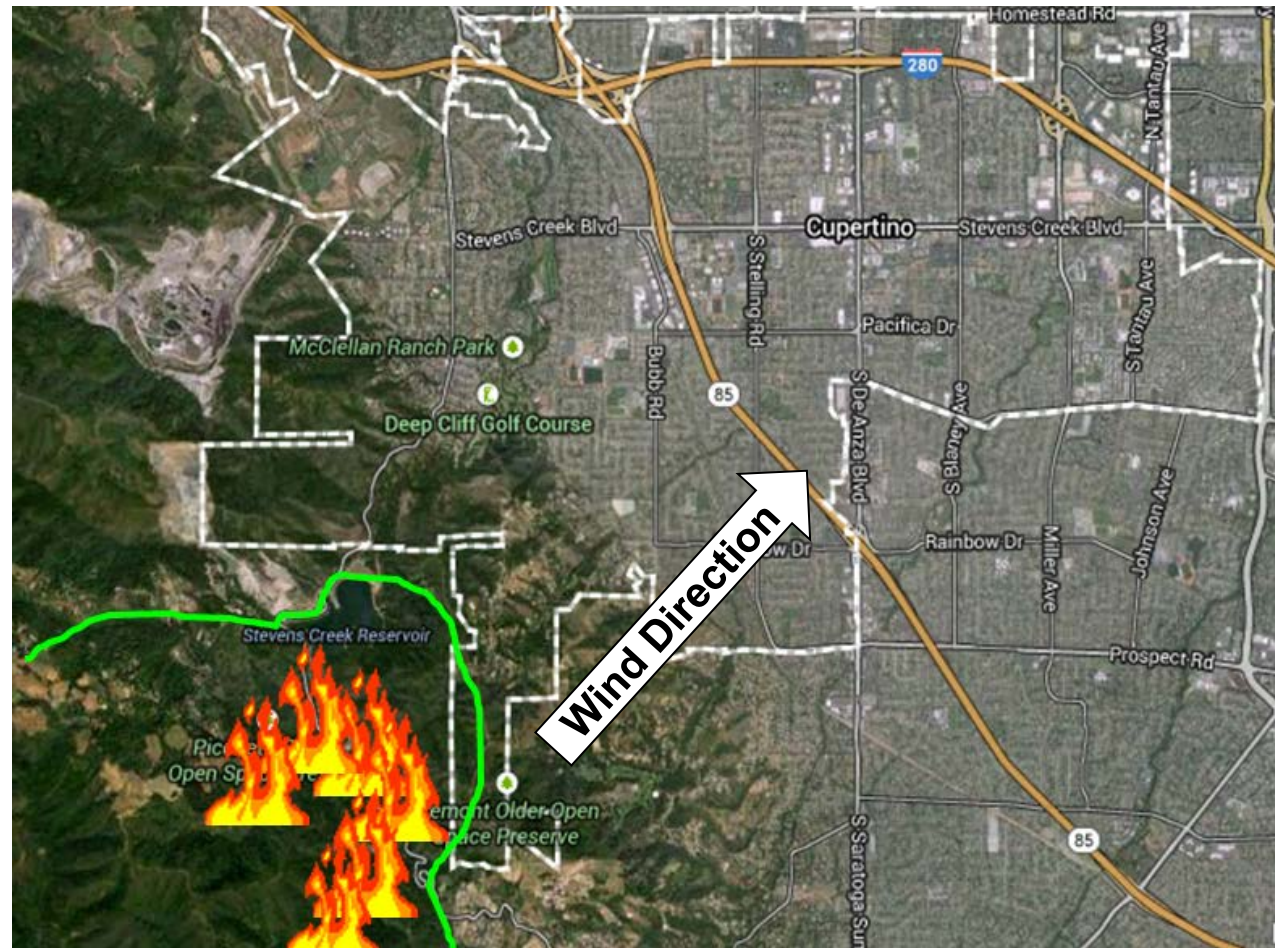
Ember Watch – what is it?

1. The Santana Row fire first was reported at 3:36 p.m., Aug. 19, 2002.
2. The fire went to 11 alarms and caused more than \$100 million in damage.
3. It took a combined effort of 221 firefighters and 65 pieces of apparatus to put it out.
4. Crate & Barrel already opened, was upwind of the blaze, and spared. Other shops on the verge of completion were consumed by the flames.
5. 9-1-1 calls were received reporting roof fires approximately 1/2 to 1 mile south of the fire.
6. Flying embers, some as large as two-by-fours, continued to ignite buildings in the area, including the Moorpark Garden Apartments and several townhouses at the Moorpark Village complex; more than 30 apartments and townhouses in the Moorpark neighborhood across I-280 were impacted, causing \$2.5 million in damage.
7. It was the largest structure fire in San Jose's history.

Embers... what to look for

Ember Watch – what is it?

With the right wind conditions (that we will have during the drill), and the fire closing in on the City, there will be some hot embers dropping on the City and igniting fires.



Timeline

Wildland Fire Scenario

Friday

- 9:00am – The City Manager receives a briefing from Cal Fire on the situation.
- 10:00am – The City EOC is activated with minimal staffing primarily to monitor the situation.
- Santa Clara County OES requests the Red Cross to open a shelter in the event evacuations are required.
- The Cupertino PIO puts messages on Radio Cupertino for residents to shelter in place in smoky areas, or evacuate to the shelter at Quinlan Center.
- 3:00pm – the City Manager issues a request for CARES and CERT to activate Saturday morning.
- 4:00pm – A CAS message is sent to all CARES members:
 - i. CARES is activated Saturday morning under “CUP-14-14T”
 - ii. Available responders are to report to the EOC Saturday morning at 8:00am for a briefing and assignments
 - iii. the Resource Net will be activated at 7:30am to track responders to the EOC.



Timeline

Wildland Fire Scenario

Saturday

- 0730 Comm Van at EOC, resource Net is operational.
- 0800 Assemble at the EOC Parking Lot, Safety Briefing, make Field Assignments
 1. Ember Watch, fixed locations
 2. Ember Patrol, mobile
 3. Sheriff Shadow
 4. Cal Fire Base Camp
 5. County Fire Shadow
 6. Quinlan Center Shelter
 7. Key road closures, checkpoints
 8. Comm Van
 9. Others?
- 0900 All field responders at their posts.
- 1100 Secure field operations, travel back to the EOC for debrief.
- 1130 Hold debrief.
- 1230 End of the Event.



Simulating the event

Wildland Fire Scenario

1. All field responders will receive a scenario sheet for your specific assignment.
2. It will include the current conditions, what you see, what you hear, and when it occurs.
3. At the assigned time, read that item, and take the necessary action.

The following is provided as general information for your consideration during this drill.

Location	Monta Vista Ark, Stevens Creek Blvd and South Foothill Blvd
General Situation	<ul style="list-style-type: none">• Power has been out throughout the city since the 7.5 earthquake at 6:00am. No estimate as to when the power will be restored.• The wired and cell phone network is overloaded – no dial tone the last time you checked.• You filled a water bottle when you left your house and observed that the water pressure was low.• KCBS is on the air, one of the few stations still broadcasting. They report that there was heavy damage from Napa to Carmel. No word of a Tsunami – that is on everyone’s mind... but it is still early☺.
Weather:	Weather is current conditions at the time of the drill.

The following are the things you observe on your arrival at your assignment. These are things you see and interactions that you have with the people around you.

INSTRUCTIONS: Write the time you arrived in the blanks below, and pass the message at the appropriate time.

Local Situation on your arrival... this is what you observe.	<ul style="list-style-type: none">• As you arrive at the Ark, it is still being set up. There are only a handful of CERT members covering all positions; 2 more walk in right after you. Not all ICS positions have been staffed, and some ICS members are covering multiple positions.• As you arrived, you feel a good-sized aftershock -- you think this was about 4.5.• Getting to the Ark was not difficult. Even though the traffic lights were out, there wasn't much traffic on the roads, only the constant wail of sirens.• Fire Units Engine 7 and Battalion 7 are not there. The station is locked.• YOUR TACTICAL CALL IS MONTA VISTA ARK.
_____ + 5 minutes	<ul style="list-style-type: none">• You see several PG&E trucks heading West on Stevens Creek in the direction of what looks like smoke rising up from what you think is the PG&E Substation. CREATE a brief informational message and send to the EOC.



Following standard procedures

Wildland Fire Scenario

Net control procedures

- Resource Net

- Message Net

Message handling

- Third Party Traffic

- Self-Originated Traffic

- Administrative Traffic

Forms



Message Handling

Three types of messages

1. *Passing traffic on behalf of a served agency*

- Pass the message from the served agency exactly as written.
- *However*, if it is not clear to you, it may not be clear to the EOC. It's OK to coach the originator and suggest clarity. But, it ultimately must be the originator's message.

2. *Self-originated messages*

- These messages may not be written and a written response may not be required. In this case, you control what the message text will be. Write it down anyway.

3. *Administrative messages*

- Essentially not message traffic, but can be questions to the NCO or Shift Supervisor, such as requesting a relief, inquiry on meals, requests for a station to meet you on a TAC-3, etc.



Message Handling

Three types of messages

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Message Handling

Self-originated messages

- ***Informally originated*** -- These are messages based on your observations, or information or inquiries you receive that you believe should be passed on for action.

Example: - Observing smoke bearing 25 degrees from my location
- A resident reports putting out a brush fire in their backyard

- ***Situation Reports*** -- These are more structured messages that report on the situation that exists where you are assigned. They are based on your observations or information you receive.

Example: - Preliminary Safety Assessment Report



Message Handling

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Field Message Handling

The Field Message Handling Reality

- Ideally, we carry lots of pads of pre-printed Message Forms
- Or, the minimum things we need to have:
 - Pencils, Clipboard or folder, and any one of these...
 - Spiral note pad
 - Index Cards
 - Pad of Paper
 - Post-its
- Creating a message
 - MESSAGE NUMBER
 - FROM: Who is giving you the message
 - TO: Who needs to get it
 - MESSAGE: If detailed or technical, verify you have it correct
- Create your own message forms:
 - One message per page / card / sheet / etc.
 - Quick format each form (Handbook)
- ICS 214 Unit Log, ICS 309 Communications Log (Handbook)



What to Bring

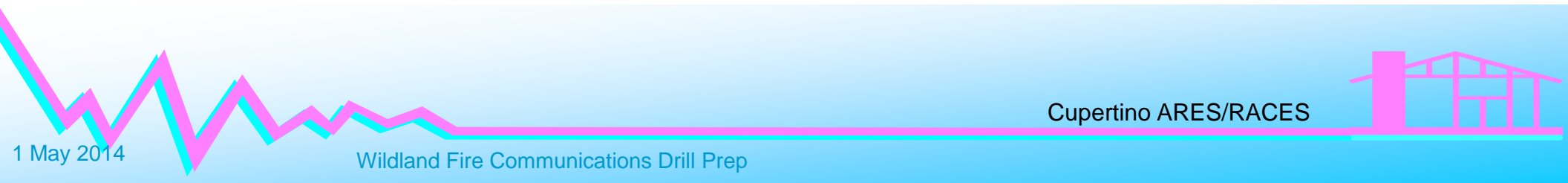
Wildland Fire Scenario

Field Assignments

1. GoKit, Radio, Batteries
2. Extras
 1. Compass (iPhone compass is ok)
 2. Binoculars
3. Sun tan lotion
4. Water, snacks
5. Others?



Questions



References

1. <http://en.wikipedia.org/wiki/Wildfire>
2. Santana Row Fire FEMA Report
<http://www.usfa.fema.gov/downloads/pdf/publications/tr-153.pdf>
3. <http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?CA>
4. Santa Clara County Air Quality Monitoring
<http://www.usa.com/santa-clara-county-ca-air-quality.htm>

