



# Phrenic Mapping the Thomas Fire

Deputy Fire Chief Vaughan Miller,  
Ventura County Fire Department

Plenary Presentation



# Thomas Fire:

**281,893 Acres (Largest)**

**8,200 Firefighters**

**1,063 Structures Destroyed**

**280 Structures Damaged**

**2 Lives Lost**

**90,000 Evacuated**



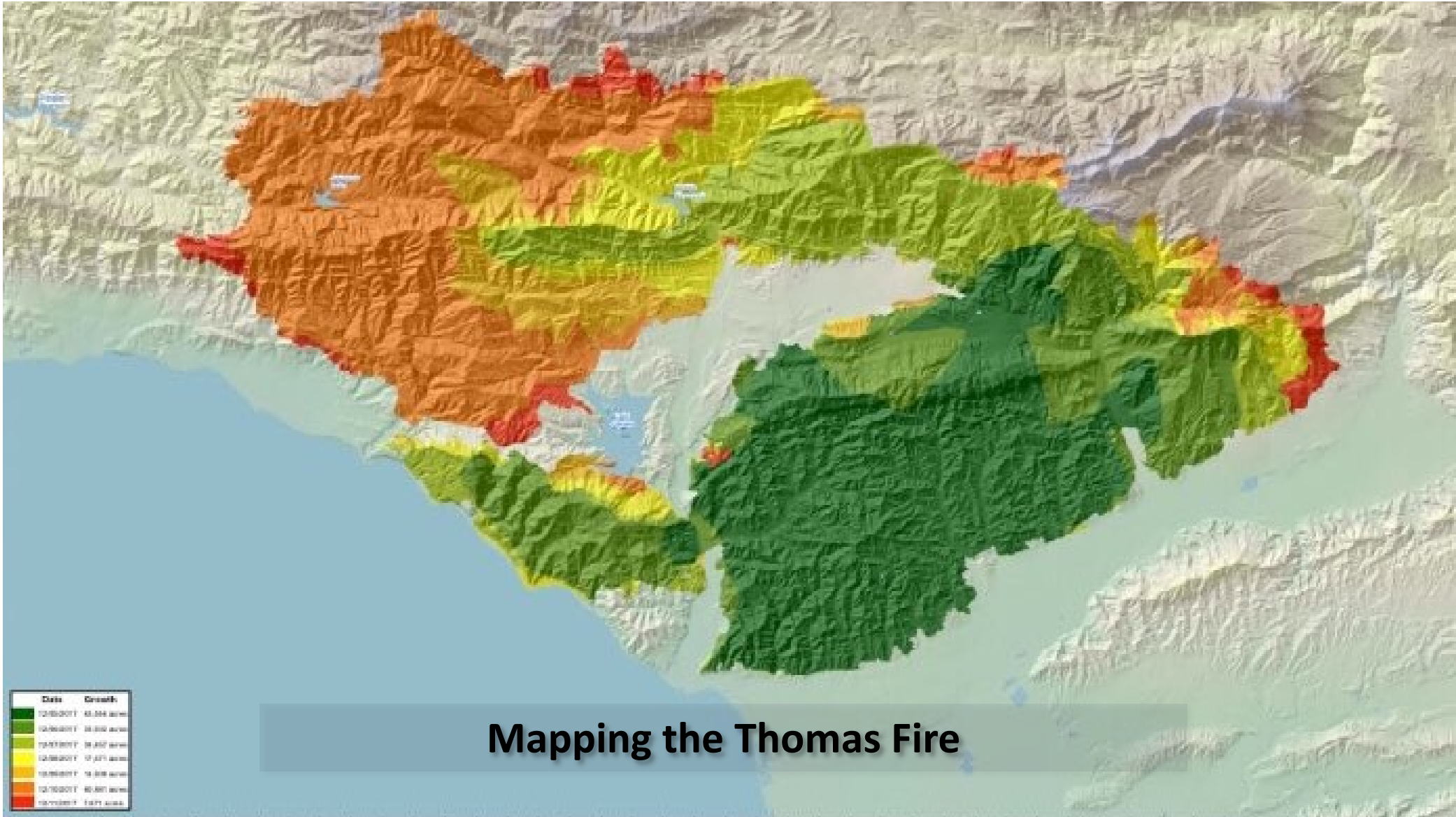


# Initial Attack Mapping:

Field Observers  
Field Observations  
Remote Camera Network  
MODIS

Remote Sensing Flights  
NIROPS  
Colorado MMA  
U.S. Army Predator Drone





# Field Observers

Boots on the ground observing where the fire is headed

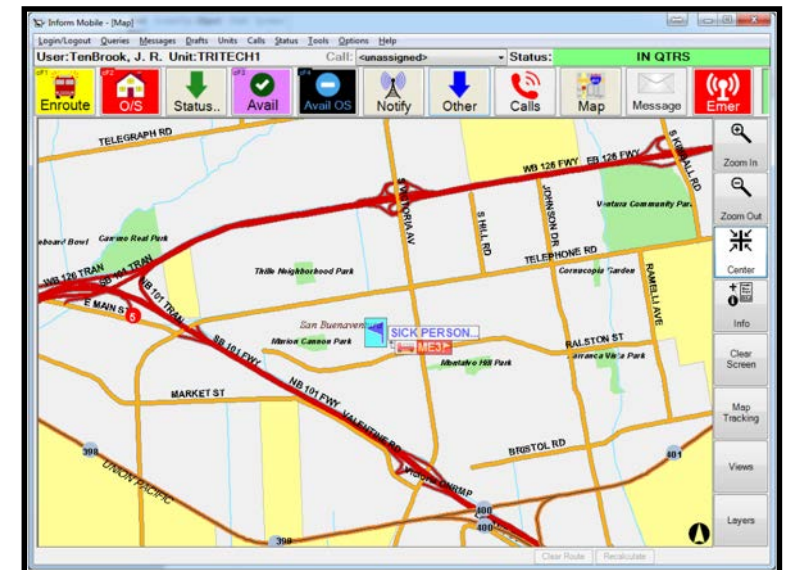
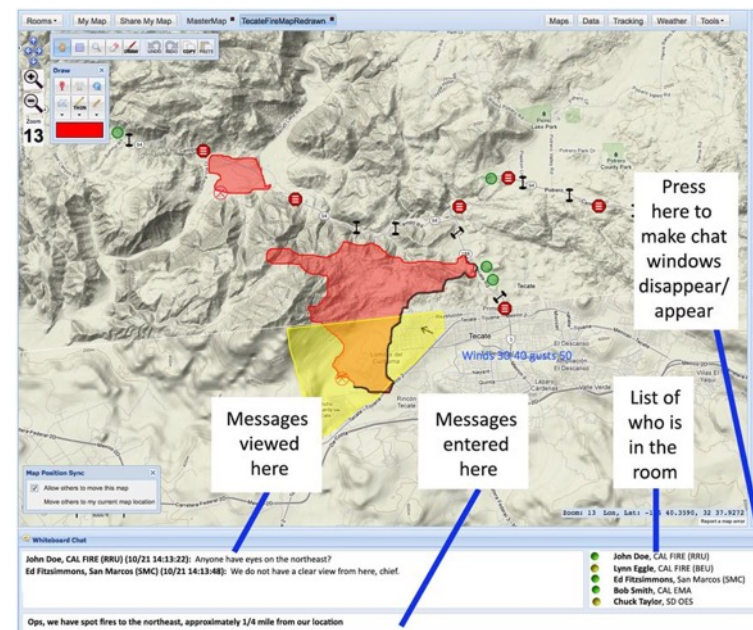
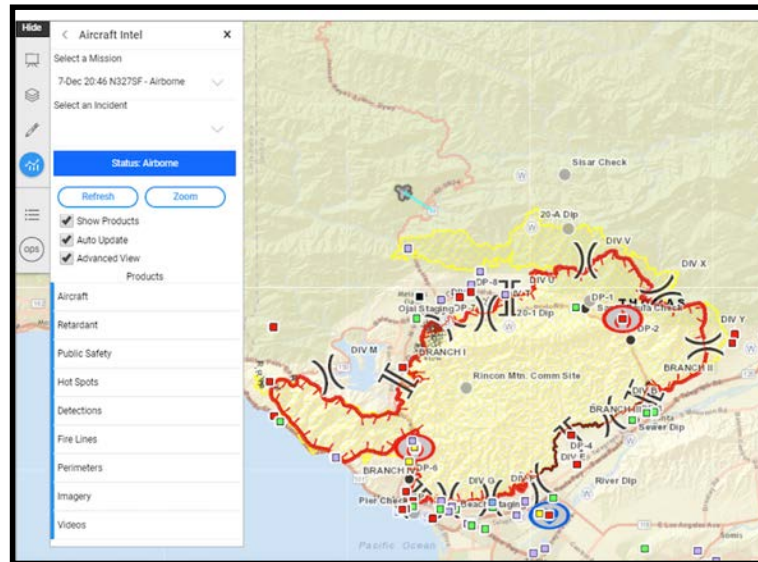
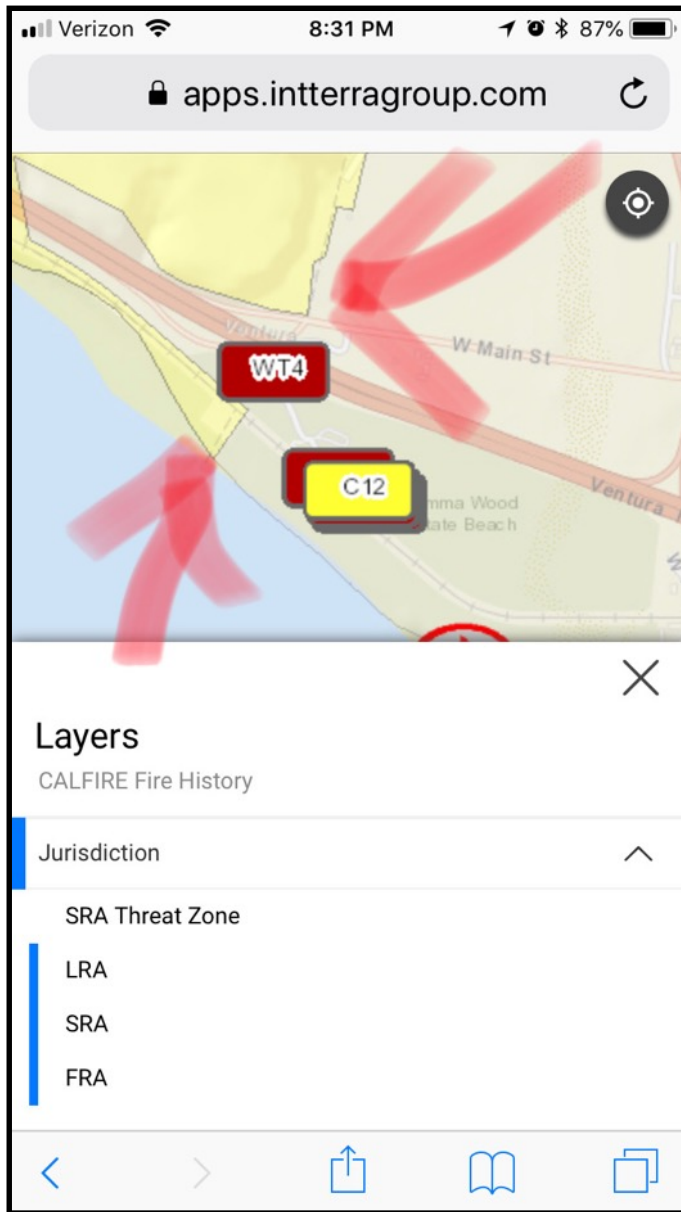
Web-based mapping software

More accurate perimeter tracking once IR flight has been made.



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# Useful, Accessible Intel

The fire ground changes rapidly under extreme wind conditions.

Field units are not in a position to receive information

Infrastructure failures

Command post with SIT unit must be a priority.



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# Commitment to Inputs

**FOBS-Reassigned**

**Fire Spread is too rapid for ground intel.**

**Value of Map is not widely recognized by field resources**





# Sharing information

What is the interoperable plan to electronically distribute incident information?

What is the interoperable plan to provide electronic access to maps for everyone?





# Intterra Mapping:

Provides ability to share all tactical, resource and local infrastructure information with all responders.

The screenshot displays the Intterra Mapping software interface. On the left is a control panel with a 'Hide' button at the top. Below it are dropdown menus for 'Select a Mission' (7-Dec 20:46 N327SF - Airborne) and 'Select an Incident'. A blue bar indicates the 'Status: Airborne'. There are 'Refresh' and 'Zoom' buttons, and three checked options: 'Show Products', 'Auto Update', and 'Advanced View'. A 'Products' list includes Aircraft, Retardant, Public Safety, Hot Spots, Detections, Fire Lines, Perimeters, Imagery, and Videos. The main map area shows a tactical view of an incident scene with various resources and infrastructure overlaid. Resources include aircraft (DP-1, DP-2, DP-4, DP-6, DP-7, DP-8), divisions (DIV M, DIV G, DIV P, DIV E, DIV B, DIV U, DIV V, DIV X, DIV Y), branches (BRANCH I, BRANCH II, BRANCH IV), and other points of interest like 'Ojai Staging', 'Rincon Mtn. Comm Site', 'Sewer Dip', and 'River Dip'. The map also shows local infrastructure like roads (122, 101, 118), water bodies (Pacific Ocean), and terrain features.





Intterra

find layers & places

**Layers**

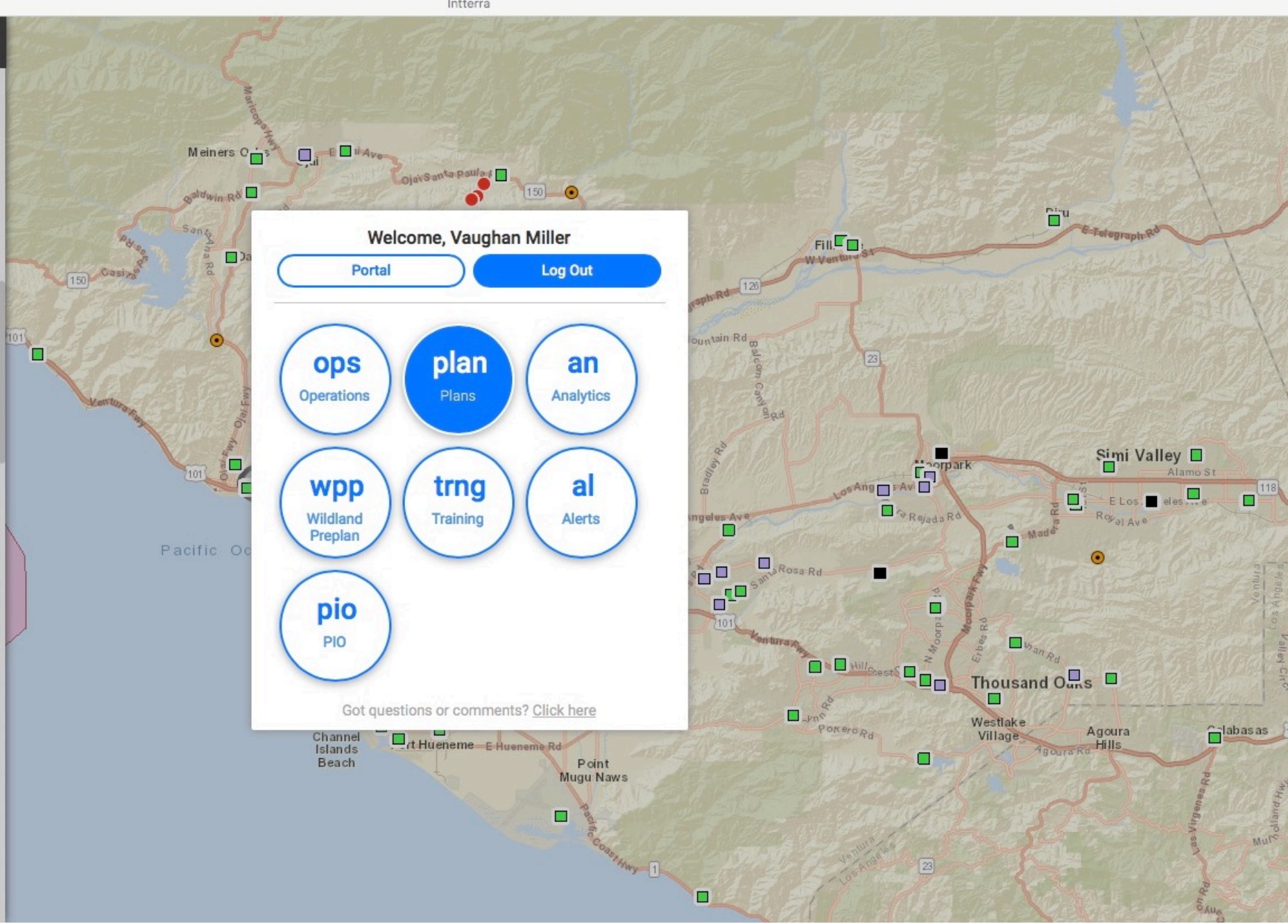
Basic Advanced

ROAD AERIAL TOPO HYBRID NAIP QUADS

Add Layer >

- AVL
- Calls
- Mobile Units
- Add/Edit Incidents
- Edit Wildfire
- Edit National Incidents (NIS)
- Display National Incidents (NIS) - Approved
- Display Thomas Incident Map
- Post-Fire Debris Flow Hazards
- Display Incident Map
- Edit HazMat
- Edit USAR
- Display Wildfire Preplans

plan



Welcome, Vaughan Miller

Portal Log Out

ops  
Operations

plan  
Plans

an  
Analytics

wpp  
Wildland Preplan

trng  
Training

al  
Alerts

pio  
PIO

Got questions or comments? [Click here](#)





Intterra

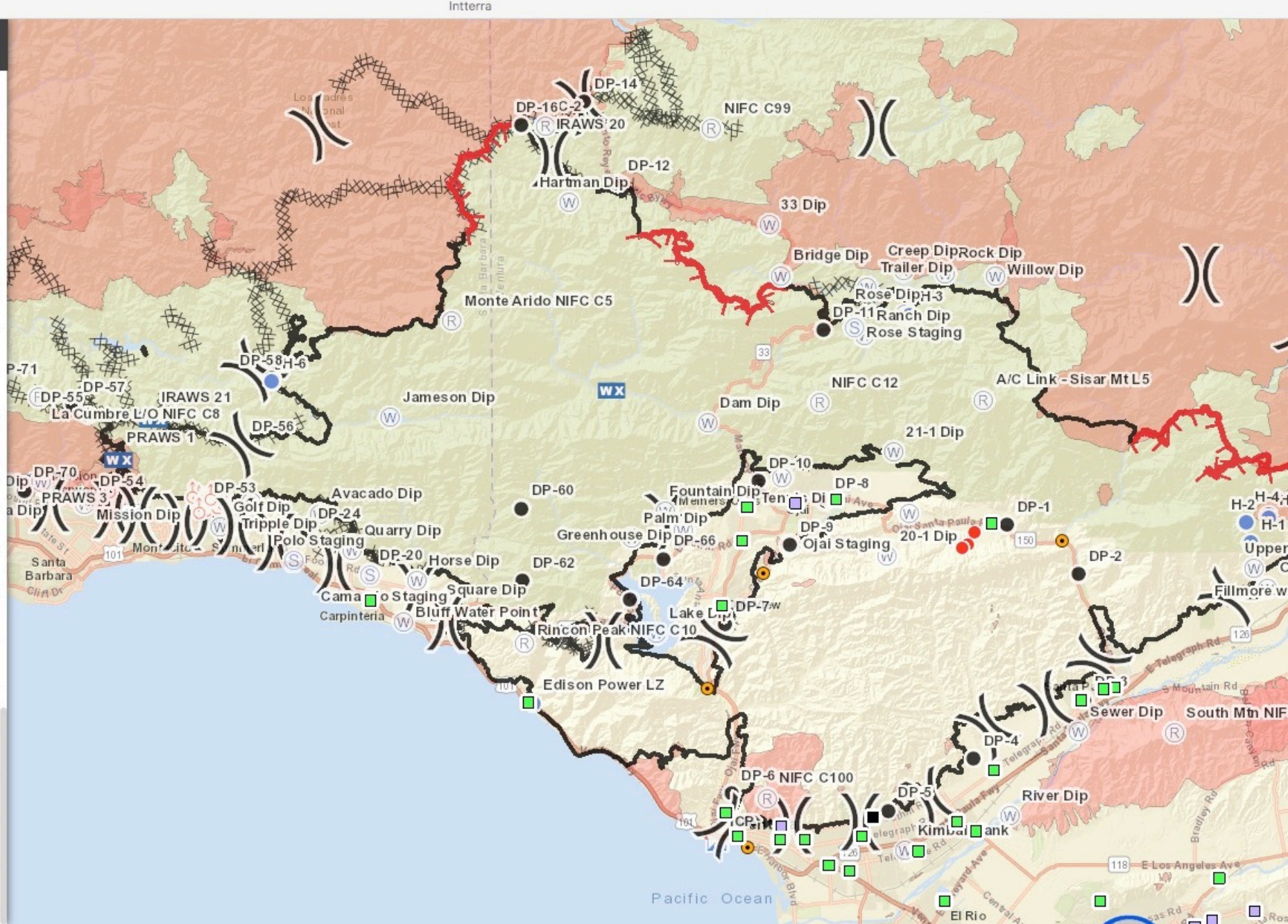
find layers & places

### Layers

Basic | Advanced

ROAD AERIAL TOPO HYBRID NAIP QUADS

- RAWS
- Wind Direction and Speed
- Wind Velocity (NowCoast)
- Seismic Events 30-days (USGS)
- Shakemap 30-Day (USGS)
- NWS Weather Watches
- CALFIRE Fire History**
- Jurisdiction
- Ventura PrePlan Regions
- USFS Hazardous Fuels Treatments
- Non-USFS Fuels Treatments
- Major Utilities
- Helispots
- Ventura Basemap





# Sharing the Incident Map

## Tactical Version:

Responders

Partner Agencies

Emergency Managers

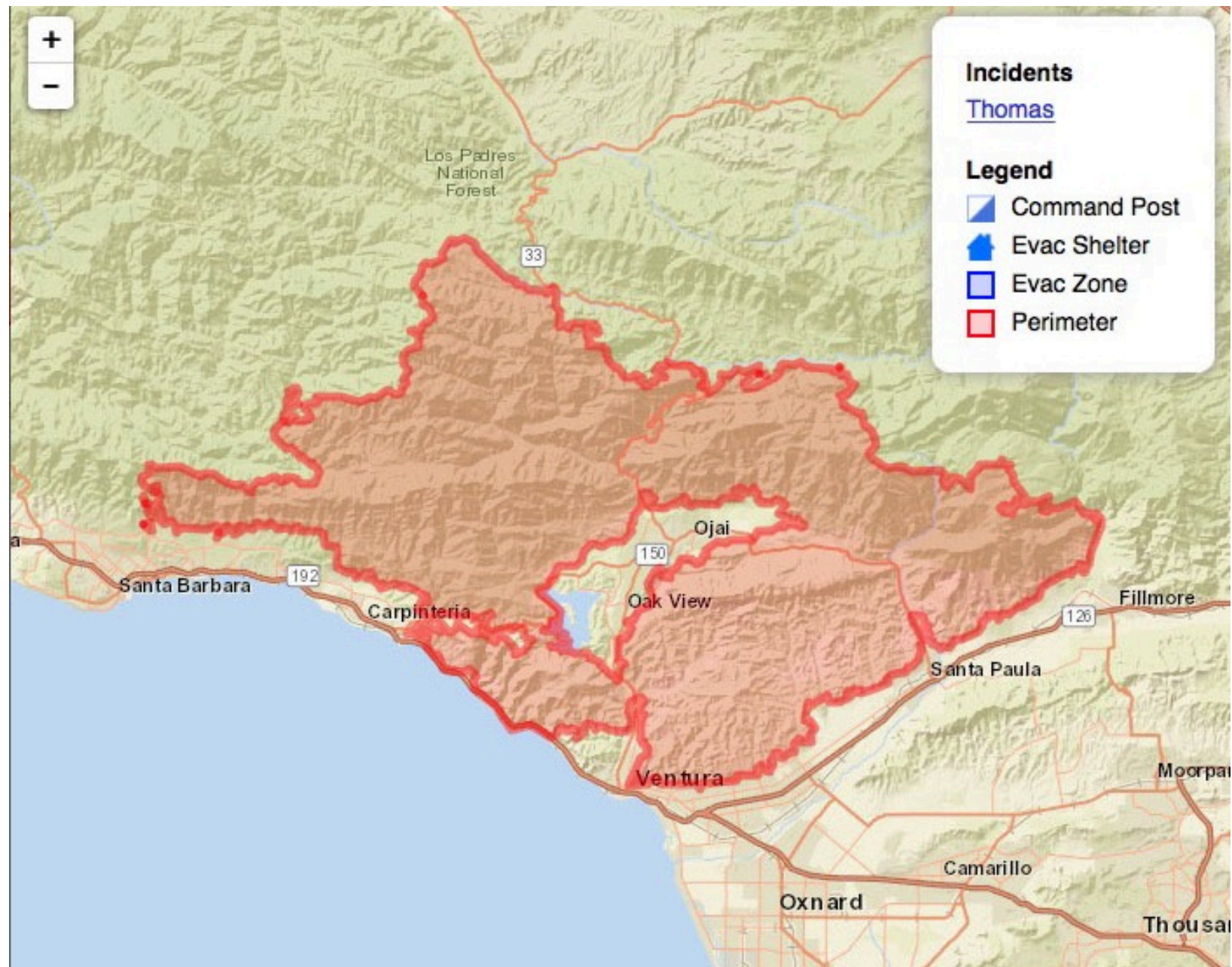
SCOUT

EGP

## Public Version

Website

Social Media

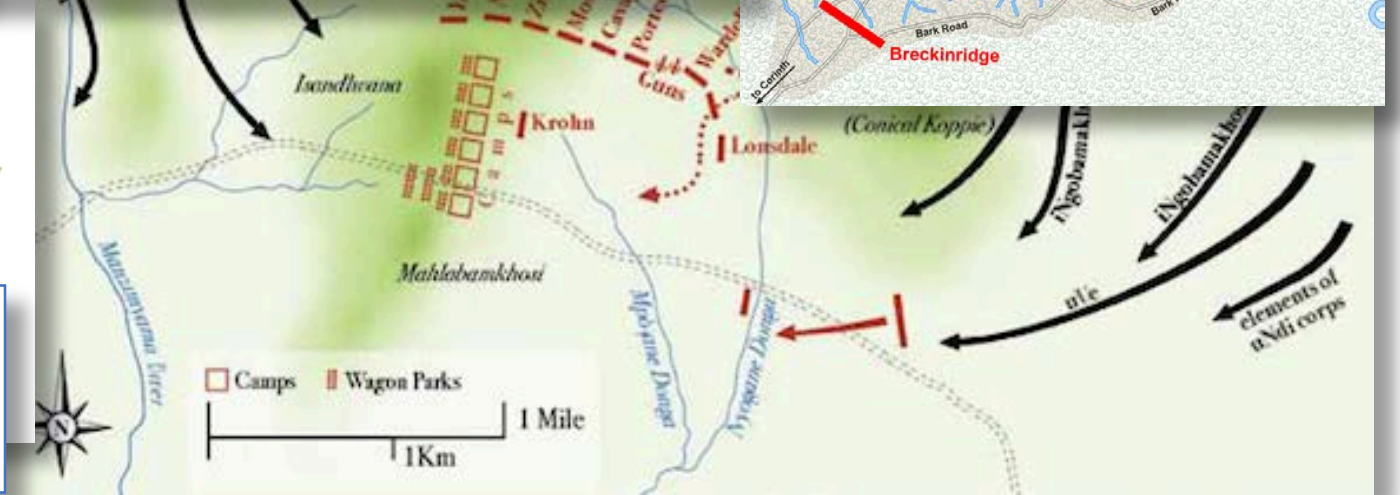
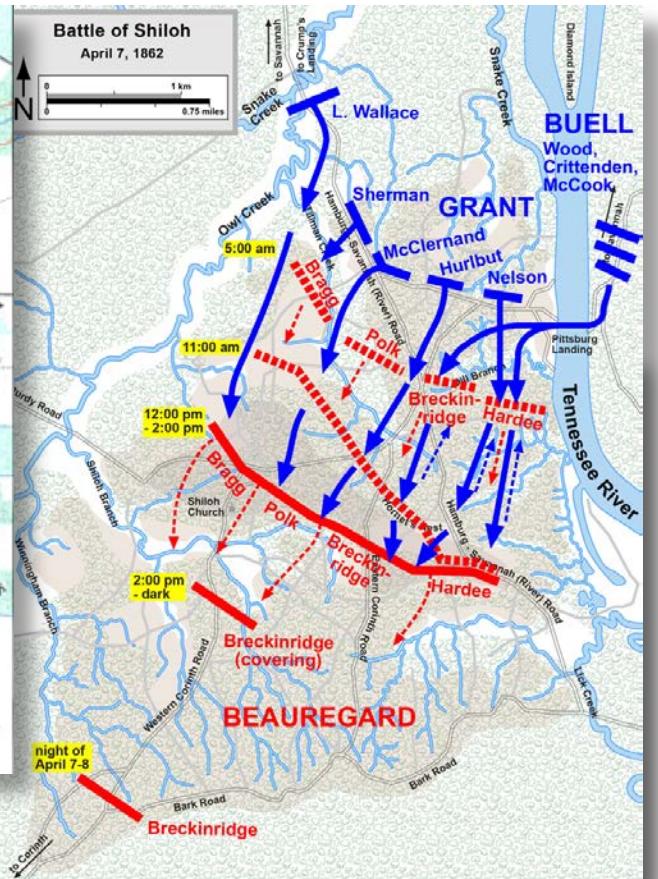
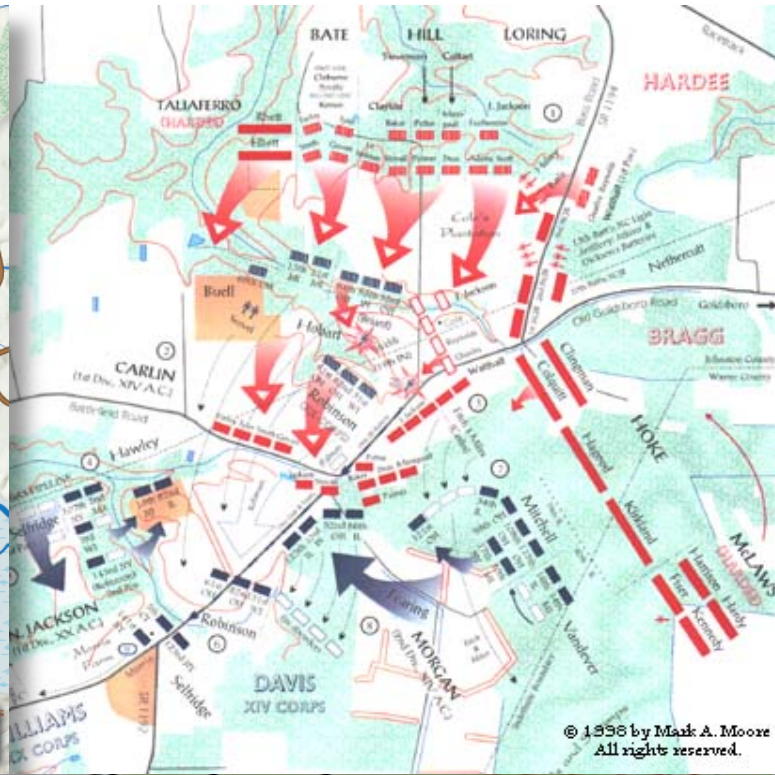
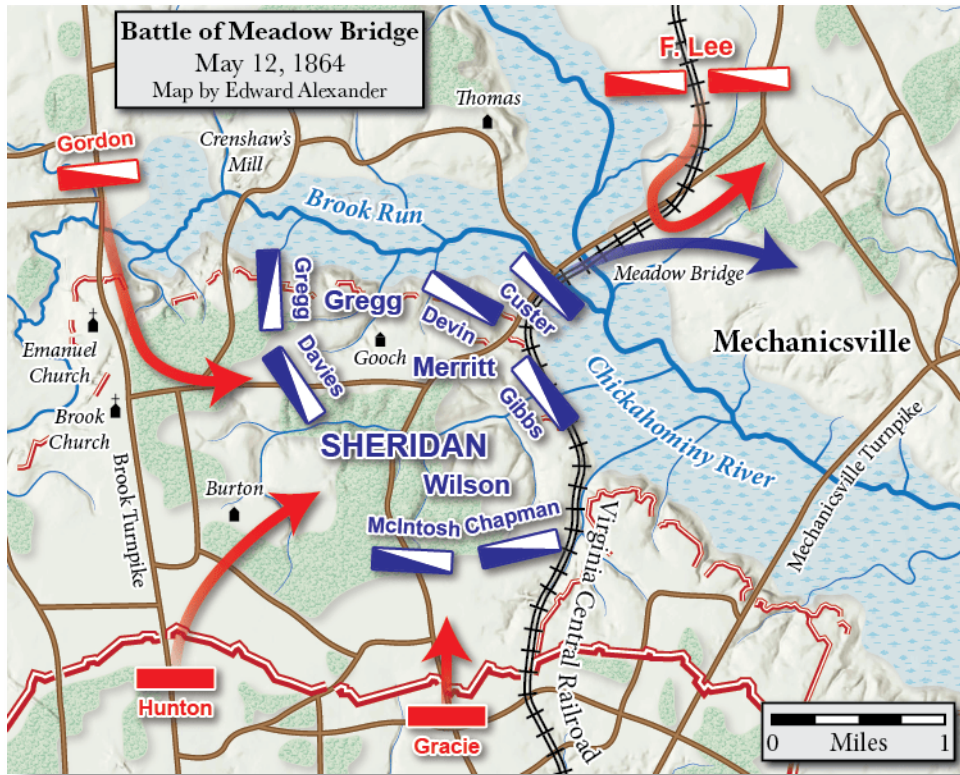






# The Strategy





# Old Battle Maps





# A Story Map

Santa Susanna Fire (Training)







Casitas Springs

Contingency Line-Retardant

Direct line construction

Contingency Line -Road Network

Structure Defense

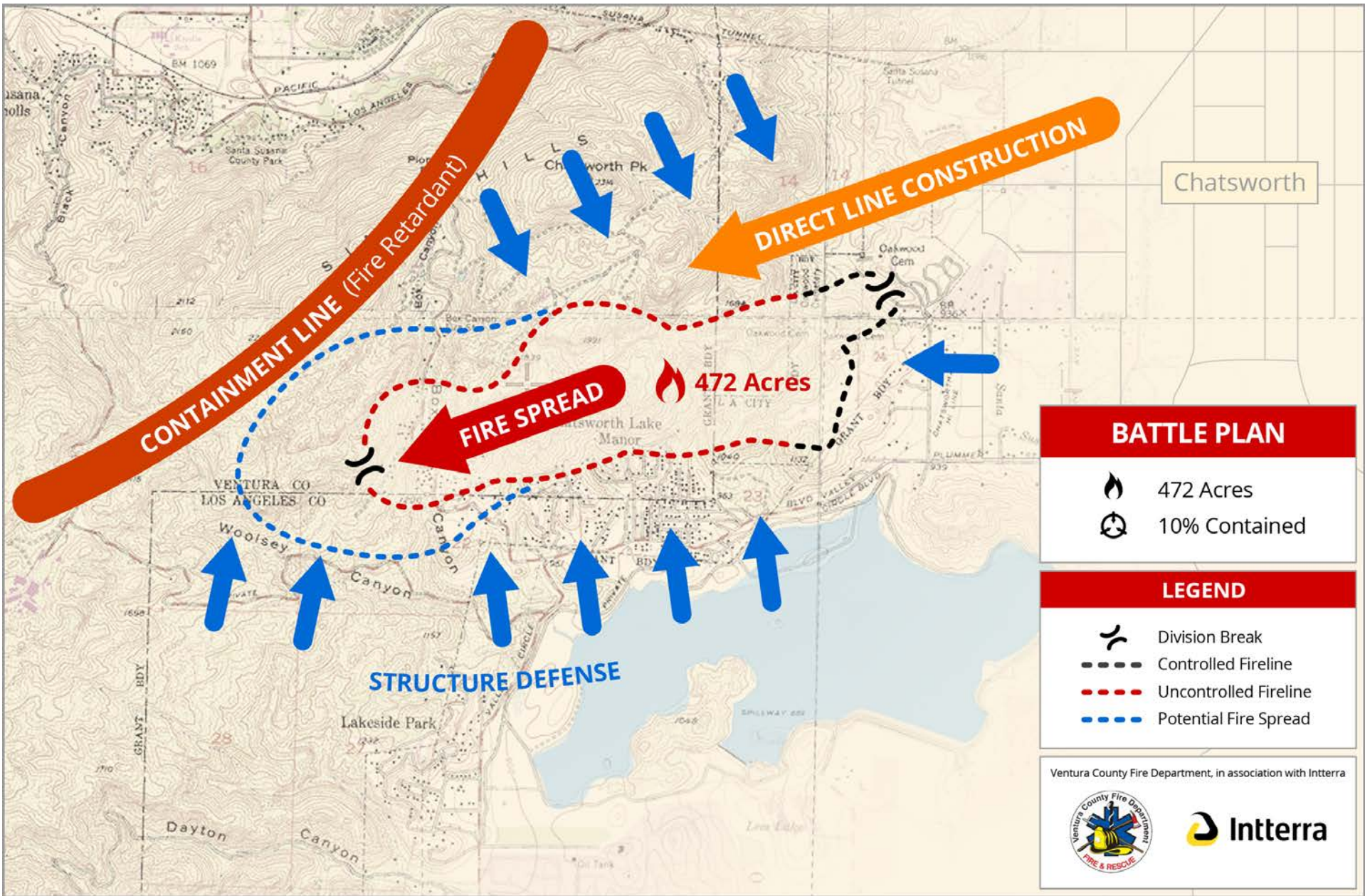
Direct Line Const.  
w/ Crews + Copters

HWY 33

Spot fires: Contained by crews

**Vista Fire**  
10/4/17 18:00 Hrs  
App. 80 Acres  
Estimated Containment 12:00 10/5/17





**BATTLE PLAN**

-  472 Acres
-  10% Contained

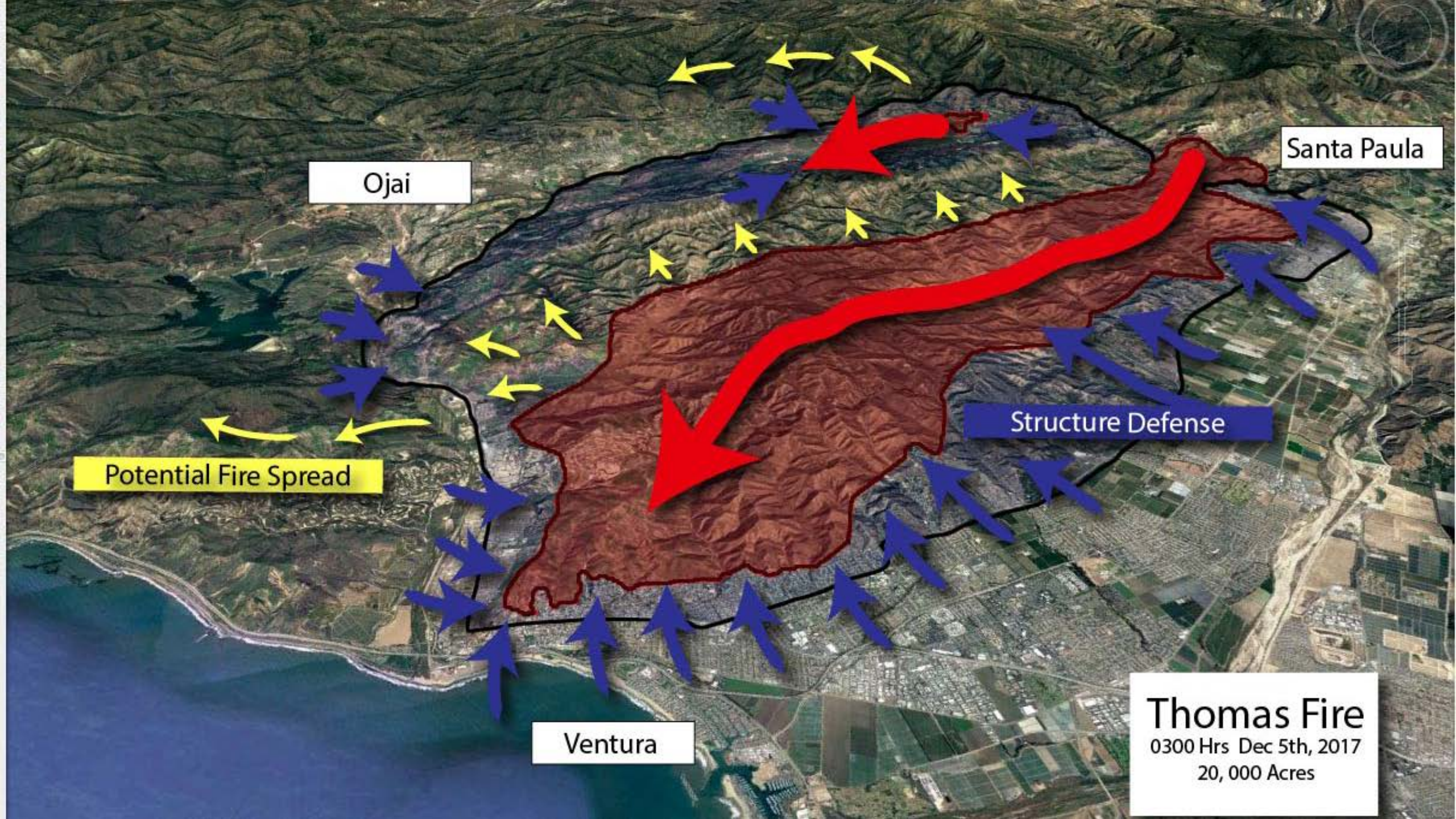
**LEGEND**

-  Division Break
-  Controlled Fireline
-  Uncontrolled Fireline
-  Potential Fire Spread

Ventura County Fire Department, in association with Intterra







Ojai

Santa Paula

Structure Defense

Potential Fire Spread

Ventura

**Thomas Fire**  
0300 Hrs Dec 5th, 2017  
20,000 Acres



# Thank You



[www.VCFD.org](http://www.VCFD.org)



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