

Incident Summary Page for the 100 Fires Project

Incident Name: Cedar Fire	Incident Date & Time: 10/25/2003 @ 17:30
Incident Location: Cleveland National Forest, San Diego County, California	Incident Size: 273,246 acres
Types of resources involved: Federal, state and local government resources	# of Fatalities/injuries: 15 fatalities including 1 firefighter
Reasons this fire was selected for the 100 Fires list:	
<ul style="list-style-type: none"> ➤ Fire made a notable impact within the wildland fire service ➤ Civilian mass casualty event 	
Conditions leading up to the event:	
<p>The years between 1998 and 2003 had been unusually dry in southern California. The region had received only 50-75% of normal rainfall in 2003. No summer season storms occurred, and 2003 ranked in the bottom 5th percentile for rainfall over the previous 108 year period.</p> <p>The National Weather Service issued a Red Flag Warning for southwestern California on October 24, forecasting sustained low Relative Humidity at less than 10%; strong, persistent gusty Santa Ana winds; and poor evening recoveries through October 27. When the Santa Ana winds surfaced on October 25, the Descanso Remote Automated Weather Station (RAWS) recorded a Relative Humidity that plummeted to 4%.</p> <p>The presence of large amounts of dead vegetation was thought to be abnormal. The dry, hot, windy conditions with low live fuel moisture were considered normal for late October, though the duration of this weather event seemed longer than normal. A conclusion shared by many was that the extreme fire behavior witnessed had a direct correlation to the fact that they were essentially fighting fire in a totally dead fuel bed.</p> <p>Many federal, state and local government firefighting resources from northern San Diego County were already assigned to another large fire, the Roblar 2 on Camp Pendleton, contributing to a shortage of available resources.</p>	
Brief description of the event:	
<p>October 25</p> <p>The Cedar Fire was reported at 17:37, just past the cut-off time for safe aircraft operations. Around midnight moderate Santa Ana winds began to influence the fire behavior. The fire was in the San Diego River drainage, the same drainage that claimed the lives of 11 firefighters in the 1956 Inaja Fire. Characterized by steep rugged terrain, heavy fuels, running from the northeast to the southwest creating a perfect topographic alignment with the Santa Ana winds. With no roads in proximity, any travel to the fire would have to be by foot. With poor access, the onset of nightfall, and high winds forecasted later in the night, the Incident Commander determined this would pose an unacceptable level of risk to the firefighters.</p> <p>Rich Hawkins, a Forest Fire Management Officer for the Cleveland National Forest (retired) and Carlton Joseph, another Forest Fire Management Officer for the Cleveland National Forest (retired) agreed that <i>“The lack of roads for firefighter access, perfect topographic alignment for rapid fire spread, and the high percentage of drought killed vegetation were important factors in the fire reaching a large size of over 100,000 acres by 10:00 a.m. on October 26, 2003.”</i></p> <p>The first reference of extreme fire behavior occurred at 23:18, when a CDF Battalion Chief described the fire from the east end of the San Diego Country Estates: <i>“I’m watching what I think are probably 75-foot flames right now just rolling and we had probably about a 60 to 80 acre area ignition go on about 5 minutes ago...100-foot flames now.”</i></p> <p>The Cedar Fire quickly evolved into a wildland-urban interface conflagration. In a short time, neighborhoods were threatened, and loss of human life went from a possibility to a reality. Operational priorities shifted to the protection of civilian lives and absorbed all available firefighting and law enforcement resources. Evacuation notification to residents was issued by door-to-door contact or via loudspeakers on emergency vehicles.</p> <p>The fire moved through the Barona Indian Reservation. Firefighters established a roadblock at the top of Wildcat Canyon Road to stop the flow of traffic into what was becoming an extremely hazardous area. Over 1000 civilians were in the Barona Valley Ranch Casino, which has a golf course surrounding the resort. Guests were advised they would have to shelter in place at the Casino. Had any patrons attempted to evacuate by car, many would likely have been trapped by fire on Wildcat Canyon Road. There were many reports of firefighters, law enforcement and civilians trapped by fire on Wildcat Canyon Road and in the Barona Valley and this is where most of the civilian casualties occurred.</p>	

October 26

A report to dispatch from a lookout was recorded just prior to 01:30 hours: *“Winds still out of the northeast to east, but they’re up to 25-40 mph with gusts up to 53 mph. Temperature is 66. Humidity is at 11 percent.”* At 03:00 the Cedar Fire had reached the town of Lakeside and by 05:00 it had reached the city of Poway. As the rest of the day progressed the fire burned into the city of San Diego, crossing Interstate 8 and Interstate 15 in the process. In the first 48 hours the fire had burned over 200,000 acres.

October 27

The following excerpt from the *ICS 209* dated 10/27/2003 @ 14:18 describes the firefighting conditions during the first 48 hours: *“Multiple homes in a wildland intermix setting; fire has burned through San Diego Country Estates and Barona Indian Reservation, parts of Lakeside, Santee, San Diego City, Alpine, Crest, and numerous other communities. The fire continues to move in all directions in an area of old growth brush with poor clearance around homes and into residential areas in communities well outside the urban interface. The fire has travelled well inside San Diego City. The winds continue to switch between mild Santa Ana and normal on shore flow and are pushing the fire in all directions. We are continuing to experience extremely low humidities and high temperatures that hinder firefighting efforts. Many of the communities threatened are densely populated with limited ingress and egress; firefighting resources are limited due to multiple other fires in Southern California.”*

The first sign of diminishing Santa Ana winds came during late afternoon on the 27th.

October 28

Now with a west wind influence, the fire began to burn in the opposite direction towards the east side of San Diego County into higher elevation conifer stands. Upslope runs and spotting were present in the early morning. By sundown the fire had burned into the communities of Cuyamaca and Harrison Park, temporarily trapping a structure protection group and destroying most of Cuyamaca State Park. However, by that night there were just a few sections of open line remaining, one of those sections being in the area of Wynola Estates and the town of Santa Ysabel, along Highway 78/79 on the northeast flank of the fire. A Structure Group was assigned on that section of the fire to create a control line by bringing fire along the highway.

October 29

The firing operation commenced around 01:00 and was completed at approximately 06:00, with the exception of a section between the Inaja Memorial and River Wood Drive along Highway 78/79. A strong westerly wind was funneling up the San Diego River drainage and pushed the fire spread towards that incomplete section between the Inaja Memorial and River Wood Drive. The Julian RAWS recorded winds at 9-17 mph with gusts to 30 mph between 06:10 and 12:10 hours. As the fire spread to the northeast a cascade of errors involving miscommunication amongst resources, independent action, and discordant firing operations was occurring. This combined with volatile fire behavior due to alignment of fuels, wind, and topography and led to the tragic fatality of Firefighter Steven Rucker during the early afternoon hours (*for a more detailed account of the fatality, see the links provided below*).

October 30 – November 4

The air mass became saturated with the return of the marine layer and finally measurable rain. With the change in weather conditions, the Cedar Fire’s progression slowed significantly, eventually stopping all together. The fire destroyed over 2800 buildings across the county and caused the deaths of 14 civilians and 1 firefighter. The Cedar Fire, along with the Paradise Fire and the Otay Fire that occurred at the same time, burned over 375,000 acres; or about 13% of San Diego County.

Fire behavior factors that were present during the event:

Incident Commanders and local fire experts were consistent in their descriptions of how this fire behaved in relation to previous fires burning under similar weather conditions. All agreed that while they had fought many previous fires during significant Santa Ana wind events; this fire was far beyond any they had experienced before. A common statement among these individuals was *“I’ve never seen fire spread that fast in my entire career.”* Extreme long-range spotting and mass area ignition was prevalent during the fires first burning period. The fire made a 29 mile run from approximately midnight on October 25 to 10:00 on October 26, burning approximately 100,000 acres in 10 hours.

Operational lessons available for learning from this incident:

San Diego County implemented a new, upgraded 800 MHz communications system so all emergency personnel have access to the same communication system. Additionally, the county provided 800 MHz radios to Cleveland National Forest resources.

Creation of the San Diego County Fire Authority which provided structure for the 56 fire agencies present in the county (federal, state, local, military and tribal lands) all of which operated under differing protocols.

Creation of the week-long, county-wide Wildland Fire Preparedness Drills to ensure all departments could refresh and prepare their firefighters prior to the fire season with joint training exercises.

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“Using ICS loosely” was a description many first responders used to describe their actions in the first 48 hours. During the Cedar Fire, fire supervisors implemented a geographically based operational concept as opposed to a traditional ICS structure. This proved to be very effective considering the lack of resources and the complex, dynamic and aggressive Cedar Fire.

More attention to the evacuation process, with Incident Commanders now routinely including law enforcement agencies into the unified command. Building relationships with law enforcement agencies and other fire agencies is paramount to the success of emergency personnel on incidents.

Dense urban development had a significant impact on the destruction caused by the fire. Two noteworthy issues related to the destruction were identified: the lack of community fuel breaks and the lack of adequate homeowner defensible space.

Lack of hazardous fuel reduction treatments within Cuyamaca State Park led to a largely overstocked forest with heavy dead and downed timber. The heavy fuel loading influenced fire behavior and rapid-fire growth.

Notable impact or historical significance for the wildland fire service from this incident:

The aftermath of this fire had several notable impacts within the wildland fire service:

- Several studies were conducted by the National Institute of Standards and Technology and others that prompted changes in building codes nationally as well as changes in wildland-urban interface firefighting tactics.
- The Reverse 9-1-1 phone system was fairly new technology in 2003 and was not in place during the Cedar Fire. Upon review of the Cedar Fire, fire and law enforcement agencies were given the ability to use this system to notify the public of emergencies and threats for a developing incident. San Diego County was an early adopter of this system which is now used across the country.
- The inability to fly helicopters during the initial attack phase of this fire became a political issue which generated new initiatives regarding night flying aviation for wildland firefighting.

Links to more information on this incident:

- https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5297020.pdf
- https://www.firescience.gov/projects/04-1-2-01/project/K2004_LessonsfromtheOctober2003.pdf
- <https://www.sandiego.gov/sites/default/files/afteraction03.pdf>
- <https://www.oasis-open.org/committees/download.php/26807/Firestorm%202003%20Case%20Study%20-%20Final.pdf>
- https://www.coloradofirecamp.com/cedar_fire/niosh_summary.htm
- <https://nsjfire.org/wp-content/uploads/2014/04/Faces-20031.pdf>
- <https://wlfalwaysremember.net/2003/10/29/steven-rucker-cedar-fire/>

Video:

- <https://www.youtube.com/watch?v=oBJRmdjacCk>

Book:

- *The Fire Outside My Window* ~ by Sandra Millers Younger

The Wildland Fire Lessons Learned Center offers an excellent site which provides information on many wildland incidents:

[Wildland Fire Lessons Learned Center’s Incident Review Database \(IRDB\) \(wildfire.gov\)](http://www.wildfire.gov)

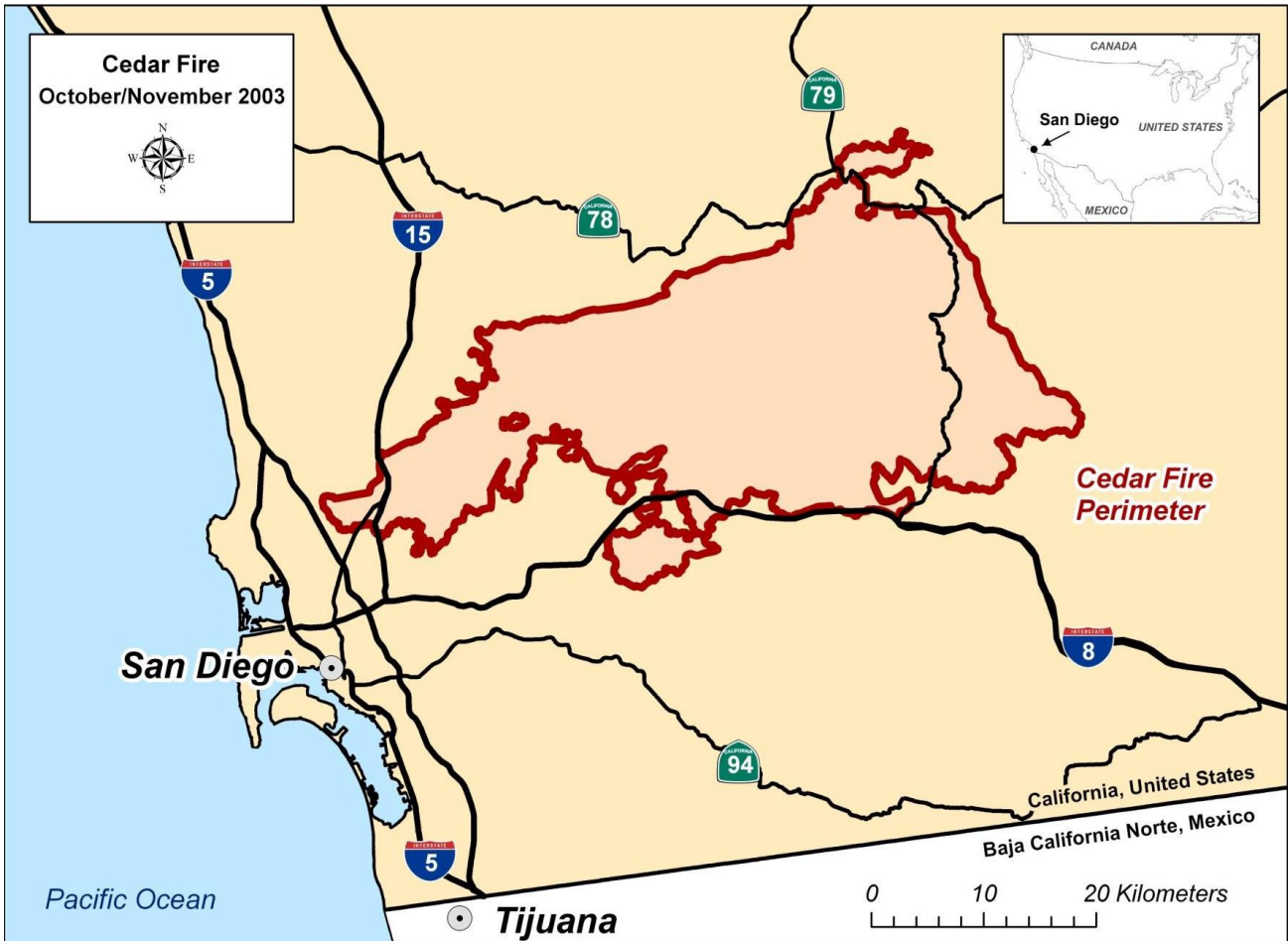
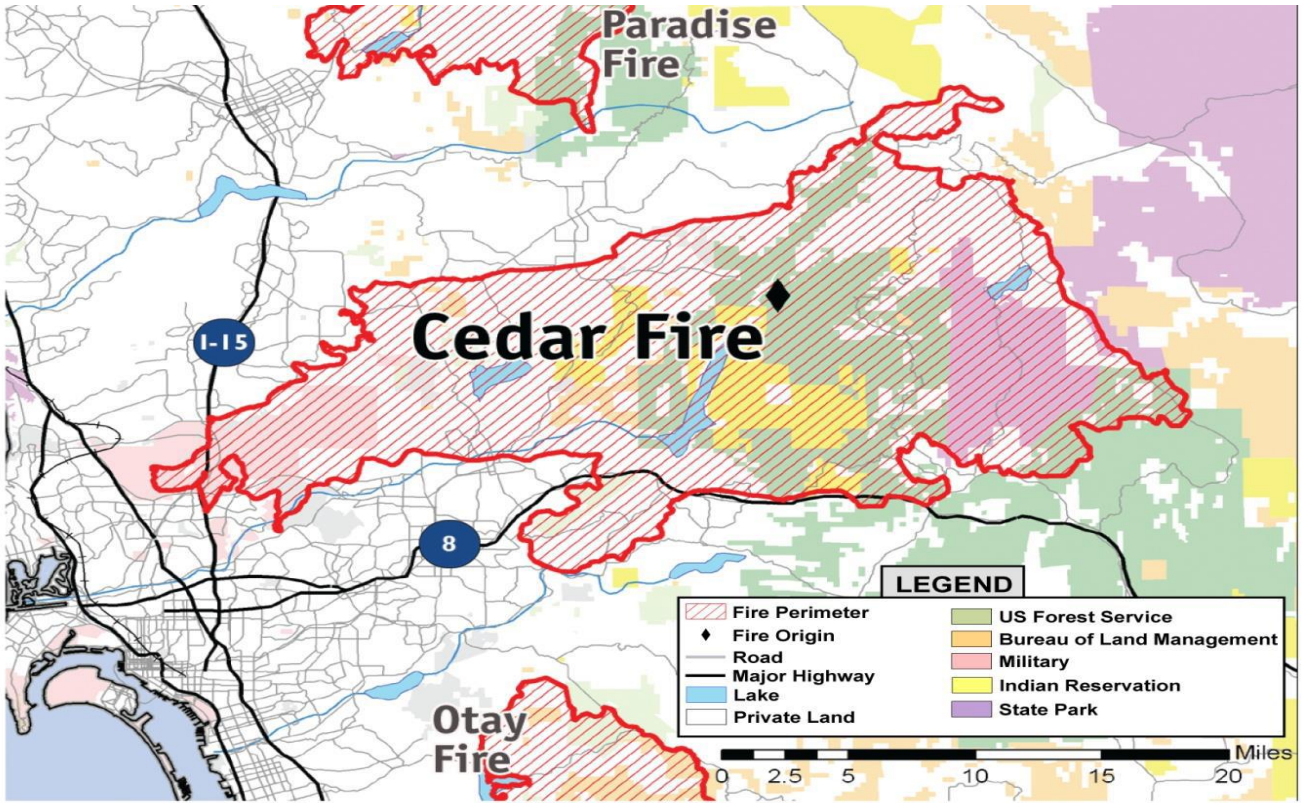
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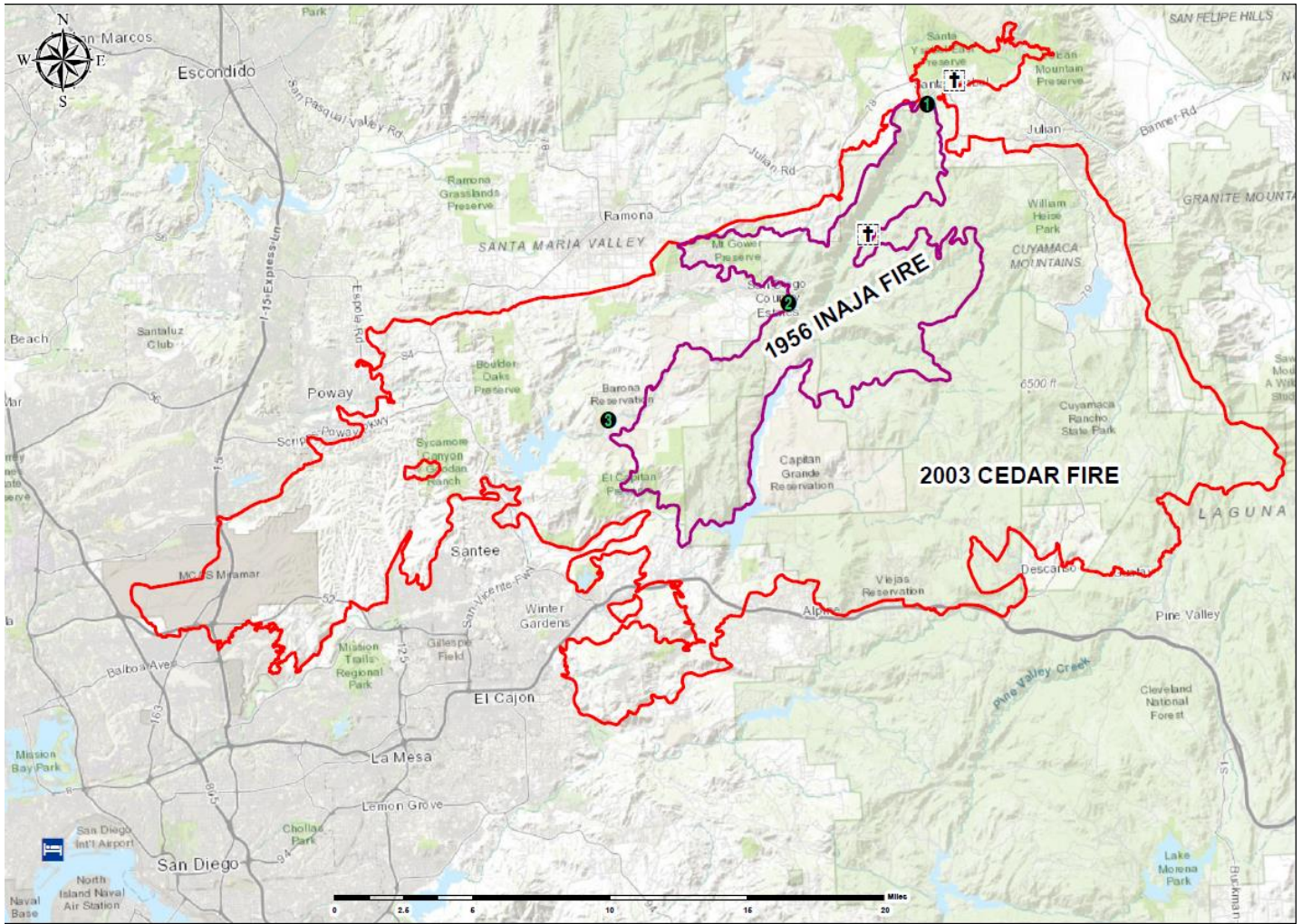
September 2023



Memorial for Firefighter Steven Rucker along Highway 78/79 in San Diego County



Incident Summary Page for the 100 Fires Project



- 1 INAJA MEMORIAL
- 2 SDRG/CEDAR CREEK TRAILHEAD
- 3 GOLF CENTER / BARONA CASINO
- ⊕ Fatality_Site
- 1956 Inaja Fire
- 2003 Cedar Fire CNF

**CEDAR FIRE STAFF RIDE
CLEVELAND NATIONAL FOREST**

