

‘A miracle’: How 132-year-old Lick Observatory was saved from one of California’s largest wildfires

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At the peak of the fire, Kostas Chloros watched as 100-foot flames consumed the trees behind his home of 23 years as though they were paper.

The superintendent of the 132-year-old Lick Observatory, in the hills east of San Jose, stood with his back to its familiar white dome on the afternoon of Aug. 19 as massive flames seared the hillside below. He stumbled back to avoid the heat waves. Embers, leaves and burned twigs flew at him. Ashen smoke seeped through his mask.

“When I saw the big flames coming up the hill, I thought, there’s nothing saving this,” said Chloros, 55, standing in the same spot on a recent morning.

What was at stake was irreplaceable. The observatory, the brainchild of wealthy businessman James Lick, opened in 1888. Perched atop Mount Hamilton, an hour’s drive east of San Jose, the 3,600-acre site houses 10 telescopes in nine domes and a couple of dozen other buildings. Its pride is the “Great Lick refractor” — a telescope measuring 57 feet long, 4 feet wide and weighing more than 25,000 pounds.

Lick’s astronomers have discovered planets around suns, developed laser guide star systems and created the technology to clarify telescope images.

And last month, astronomers and fans of the observatory watched on its live-stream cameras as part of the SCU Lightning Complex fires, one of the largest in state history, roared around the site. Mid-afternoon on Aug. 19, the fire jumped Highway 130 and leaped up the hill to the visitor’s center, snaking around the parking lot, engulfing two smaller ridges, and nearly encircling the mountaintop.

The fire destroyed the original house of a 19th century astronomer that had been unused since the 1980s, and damaged Chloros’ own home and three others. But with

about 50 firefighters on-site to swoop in when the worst of the fire passed, the rest of the buildings were saved.

“It really was a miracle,” said Claire Max, director of the University of California Observatories, which oversees the site, on a recent [Facebook Live video](#). “It was amazing the observatory survived considering everything.”

Max lauded firefighters and said Chloros deserves knighthood for using his knowledge to help them. The superintendent was quick to praise the “heroic efforts” of fire crews across California. Local Cal Fire Capt. Gene Parks shrugged off the spotlight, saying that his crews were “just doing their job” — although they appreciated the public’s gratitude for saving the famous site.

The observatory is one of the oldest in the world still used for research, said Tony Misch, director for the Lick Observatory Historical Collections Project. Today, it’s home to close to 30 people, including two small children.

Chloros, a Greek native who moved to the U.S. in 1991, first visited the observatory on a UC Santa Cruz class field trip and applied for a job a year later. For the past two decades, he’s worked up the ranks from a telescope technician to overseeing operations.

Driving carefully around the property with a radio on his hip on a recent morning, Chloros was calm as he described a fire besieging his home.

It started with the now infamous lightning storm that ripped through the early morning of Sunday Aug. 16 and lit the wilderness on fire. Two days later, Parks reported to the Cal Fire Smith Creek Station, 7 miles down the mountain. As winds pushed the fire closer from the north, he warned the observatory residents around 11 p.m. that they should leave sooner rather than later.

Chloros positioned people at intervals along the unlit, winding road to make sure everyone made it out safely by midnight. He and his wife, Tina Kurth, were the last to drive down as the sky rained ash around 1:30 a.m. Chloros stayed up in a San Jose parking lot to check in with each resident, before finally joining his wife at a friend’s house in Saratoga.

Parks arrived on the mountaintop with around 30 other firefighters just after Chloros left. With historic fires stretching Cal Fire resources thin statewide, the captain feared that was all the backup he would get.

Later in the morning, more crews did arrive from Montclair, Porterville, Bakersfield, Tulare and San Luis Obispo. Chloros, still in Saratoga but in radio contact with the crews, quickly realized they needed someone to help navigate the property. By noon, he was back at the observatory.

Chloros paired up with Parks to shut off building alarms, give advice about which roads were safe to travel, and keep the generator running to pump water for fire trucks with the power out. Parks directed crews to clear vegetation around structures to make them less vulnerable. If the blaze got within a quarter mile, crews would pull back up to the parking lot in front of the visitor center and its most famous dome.

The wooden dome was protected by the parking lot, road and a mostly bare hillside, thanks to federal and state vegetation management grants, that helped keep fire away from the main buildings, Chloros said.

By midafternoon, the massive plumes north of the observatory sparked a spot fire near Chloros' home and three others. Simultaneously, flames surrounded a neighboring ridge with three houses and a dome. Crews retreated.

“There was nothing you could do at that point,” Chloros said. “The size of the fire, the intensity of the fire, there was a big concern that a lot of the buildings would not survive it.”

Parks said he tried to reassure Chloros — as soon as the fire passed, crews would get in to save what they could. But Parks, a Cupertino native who'd visited the observatory countless times, said he was also worried the Bay Area landmark would burn on his watch.

“I didn't want to be the one who had lost something in my career like that,” he said.

When the smoke cleared, the two men saw a brick house on fire. It had been home to Edward Emerson Barnard, one of the observatory's first astronomers.

As soon as the main blaze passed, six engines headed through the smoke and spot fires toward separate ridges. On one ridge, crews trained their hoses on a home partially in flames while on a neighboring ridge, others reached Chloros' home as flames licked his basement office. If they'd arrived a few minutes later, firefighters said, the house would have been lost. In total, crews saved four homes.

The fire continued to rage around the observatory as dark fell on Wednesday, Aug 19. But by the next evening, the most intense fight for the observatory had been won; Chloros was finally able to leave. Parks continued working for two more weeks.

Chloros, who went down the mountain after the fire, has returned almost every day since. He said he was never scared for his own safety.

“It was an amazing miracle that with heroic efforts they were able to keep the structures still standing,” he said.

The area's evacuation order was lifted on Sept. 5 and most of the staff are expected to return this weekend. There is still no power and the site needs reliable electricity to operate telescopes. Management will conduct a scientific assessment to check if equipment was damaged and doesn't yet know the cost of any repairs. The site has been closed to the public during the pandemic, and it might be many more months before visitors can return.

Chloros, who's been sleeping in a dormitory, also doesn't know when he can move back into his home. The hill beside it is now just a graveyard of gray trees.

“It's still taking some getting used to it,” he said. “The mountain, the whole region has changed.”