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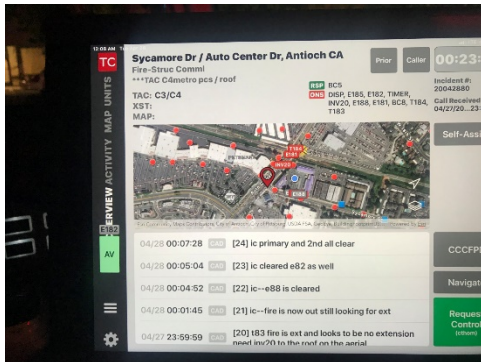
News Headlines 11/26/2020

- How to outfox fire: Computer game inspires development of disaster management app for California firefighters

How to outfox fire: Computer game inspires development of disaster management app for California firefighters

Lisa Crawford Watson, Mercury News

Posted: November 26, 2020 at 6:15AM



The iPad-based “Tablet Command” incident navigation-and-response software was developed, in part, by a local firefighter. (Courtesy photo)

California has beat its own record. In 2018, the Butte County “Camp Fire” took first place on the Top 10 list of the state’s deadliest and most destructive fires since 1932. Second place held firm with LA’s Griffith Park Fire of 1933. Yet, California wildfires ignited this year have taken first, third, fourth, and fifth places, with Northern California’s August Complex Fire at the top, having surpassed a million acres, says Will Pigeon, assistant fire captain for Contra Costa County Fire Protection District.

“I’m hearing the truth of what former Vice President Al Gore said in ‘An Inconvenient Truth,’ his 2006 documentary about global warming,” Pigeon said. “He was right when he correlated global warming with the dramatic and steady increase in wildfires.”

And, it’s only gotten worse.

“Times have changed,” said Pigeon, “and these megafires, extraordinary fires that devastate a large area, are the new normal. While it’s devastating to the environment and to the people who live there, it also has become more and more dangerous for the firefighters combating these infernos.”

In 2013, 19 firefighters died fighting an Arizona fire. In 2018, the Shasta County “Carr” fire, caused by a flat tire, which enabled the rim to ignite sparks along the road, cost a reported \$1.6 billion in damages and the lives of three firefighters.

Contra Costa County Fire Captain Andy Bozzo of Carmel felt those lives might have been saved, had their fire departments been using the iPad-based “Tablet Command” incident navigation-and-response software he and Pigeon invented, instead of traditional whiteboards, paper, and pencils to monitor fires, track fire engines, and direct firefighters to safety.

Inspiration for new incident navigation

In 2007, Contra Costa County’s Captain Matthew C. Burton and Engineer Scott P. Desmond perished while fighting a house fire, due to a flashover, where every combustible surface rapidly and simultaneously ignited. In the aftermath, Bozzo and Pigeon wondered what kind of incident and tactical command program might have saved their comrades’ lives.

Some six years later, Bozzo was playing “Words with Friends” on his iPhone, a multiplayer game in which participants build words, crossword-puzzle style, by dragging letters into place. That’s when it hit him; if he

could drag letters, perhaps he could create an app, accessible on an iPad, where firefighters could manage an incident by tapping and dragging fire units on a screen, to track fires, engines, and crew.

If he couldn't do it, Will Pigeon could. While working in fire services, Pigeon, who has a bachelor's degree in business information systems from San Diego State, also has worked in IT consulting. The two sat down with a beverage and began to map out "Tablet Command" on a cocktail napkin.

Application of the App

While winning the business competition was validating, it was the tragedy that inspired them to innovate, and a commitment to fire safety going forward that prompted them to put it into practice.

In July 2018, firefighters in Marin County were caught in an inferno when the fire erupted into a "fire tornado."

Surrounded by fire with no sense of where to go, the firefighters assumed they were done, until their incident commander pulled up their location on Tablet Command, studied the fire and topography, and directed them to the only option that would lead them to a safety zone by a reservoir. Moments before, they had been about to make the wrong decision.

When Bozzo presented Tablet Command to Van Riviere, battalion chief for Stockton Fire, now retired, the self-proclaimed traditionalist thought it was a waste of time. Undaunted, Bozzo returned and worked a fire scenario through his program for a roomful of deputy fire chiefs. Riviere not only was sold on the app; he became CEO of the company.

"Our project was born out of two line-of-duty deaths in Contra Costa County, the station we work out of," Bozzo said. "The wildfire ground is a dynamic and dangerous environment. If we don't know where it's headed, we're not on our game. Knowing who's doing what, when and where is critical to safe incident command."

Clearly, the way to protect lives is to resolve the issues that are creating the conditions which fan the flames of megafires. The way to save lives, says Riviere, is to put technology to use to create awareness of what's going on and understand where all resources are as the crisis unfolds.

"While there are other solution providers on the market with an incident management tool, all are dependent upon Internet connectivity to work," Riviere said. "Tablet Command was designed and created to stand alone; it will run on a device whether connected to the Internet or not. Fire Districts are finding this crucial."

Unlike others, says Bozzo, Tablet Command was created by firefighters with vast experience responding to and commanding incidents, by firefighters who know exactly what can happen in a crisis without the benefit of this tracking and information tool.

The first customer of Tablet Command was the city of Stockton in 2013. Cal Fire is using Tablet Command in different parts of the state, including **San Bernardino County Fire** Department, Stockton Fire Department, San Diego Fire Department, San Francisco Fire Department, Santa Clara County Fire Department. In addition, many county agencies, which participate in the statewide wildfire response — San Mateo, Contra Costa, Marin, San Diego, San Joaquin, Ventura and San Francisco — have invested in Tablet Command as their resource management tool.

Cost, says Riviere, is not prohibitive. Depending on the size and function of the agency, Tablet Command will cost around \$8,500 to \$14,500 per year. “A Windows computer costs \$6,000, and an iPad Pro is \$1,200. A portable radio is \$3,500 to \$6,000. For that, you can practically have Tablet Command.”

Monterey County is not yet using

“I’ve looked at it, and it’s a very good product,” said Monterey Fire Chief Gaudenz Panholzer, who leads a department that operates six fire stations. “While it would be a valuable tool, it is cost-prohibitive for us, not in terms of the product, but to integrate it with our computer-aided dispatch system could cost \$20,000.”

Panholzer did look into sharing the cost of implementation with the city of Salinas. However, allocating already limited resources during this unprecedented wildfire season, particularly during a pandemic, he says, makes Tablet Command cost-prohibitive at this time.

“We’re just trying to keep the doors open and the lights on,” he said. “But I promise, if you call 911, someone will respond.”

Having eclipsed last year’s record, California has gone through the most historic fire season on record, says Bozzo, and it likely won’t stop here. Other major disasters happen all over the country, whether it’s a swarm of tornadoes in the Midwest or hurricanes in the southeast, all of which need tactical incident command.

“First responders are being called to duty every day,” he said, “and 30 to 40 firefighters die in the line of duty every year in the United States. We’re providing situational awareness and a real-time tracking and information tool that helps prevent firefighter death and injury. We already have hard evidence that Tablet Command does indeed do that.”

<https://www.mercurynews.com/2020/11/26/how-to-outfox-fire-computer-game-inspires-development-of-disaster-management-app-for-firefighters/>

Firefighters have a busy Sunday with blazes in Cajon Pass and near Big Bear

Jose Quintero, Victorville Daily Press

Posted: November 30, 2020 at 4:37PM



Local firefighters had their hands full Sunday extinguishing five small fires in the Cajon Pass, and another near Big Bear caused by an abandoned campfire.

Local firefighters had their hands full Sunday extinguishing five small fires in the Cajon Pass, and another near Big Bear caused by an abandoned campfire.

San Bernardino National Forest officials said firefighters extinguished five fires along northbound Interstate 15, between Highway 138 and Oak Hill Road on Sunday morning. The largest was reported at a quarter of an acre.

According to San Bernardino National Forest spokesperson Lisa Cox, the agency responded in five minutes with two engines immediately on scene.

Eight total engines, two patrols, two battalion chiefs, a crew and helicopter were dispatched from the agency, with CalFire and **San Bernardino County Fire** Department assisting with six engines, two battalion chiefs, a water tender and a prevention officer.

The cause of fires was under investigation.

Meanwhile, the fire in Holcomb Valley, in Big Bear, was contained to roughly 900 square feet after flames escaped an “illegal and abandoned” campfire.

“Both campfires and dispersed camping are still currently prohibited in the SBNF due to elevated fire danger,” the forest service said in a tweet.

Firefighters were already on fire watch over the weekend. The San Bernardino National Forest had its firefighters staffed around the clock, according to Cox.

Considering strong Santa Ana winds, dry air and parched vegetation, power was cut for thousands of Southern California residents over the holiday weekend in an effort to prevent ignitions caused by sparking wires.

At one point Southern California Edison cut power to more than 16,000 customers.

Red flag warnings for high fire danger remained in effect due to the Santa Anas gusting 25 to 40 mph, the National Weather Service said. In the San Bernardino Mountains, the NWS said a gust hit 80 mph at Marshall Peak.

Santa Ana winds blow from the interior toward the coast, creating potentially critical fire conditions with the combination of vegetation-withering low humidity and powerful gusts, especially below mountain passes and canyons.

Common in the fall but possible at other times, the winds have fanned many catastrophic wildfires.

<https://www.vvdailypress.com/story/news/2020/11/30/firefighters-busy-sunday-fires-cajon-pass-and-near-big-bear/3779711001/>