

BEYOND STRETCHED:

Firefighters
battle for
resources in
worst-ever
wildfire season



In 2017, a total of 66,131 wildfires had a devastating impact, burning 9.8 million acres of land. Compared with 2016, the 2017 fire season represents an additional 556 fires and 4.4 million acres of destruction, an 81% increase over 2016.¹ Gone are the limited fire seasons that firefighters can adequately prepare and staff for, and in its place are unprecedented seasons stretching year-round in some cases and taxing resources above and beyond what most departments can anticipate. During these challenging times, the fire service must prepare to fight wildfires for extended periods with limited resources while facing shrinking budgets, often leading to incredibly difficult decisions. With less budget funding, how are departments expected to extend capabilities, maintain response times and not jeopardize the health and wellness of its firefighters? These are the obstacles facing the industry that forward-thinking departments will have to address to remain effective.

Unprecedented Wildfires

The fall of 2017 brought overwhelming hurricanes, monsoons, and the worst U.S. wildfire season seen in years. The National Guard, active-duty soldiers, and more than 25,000 responders worked tirelessly to contain fires that effectively destroyed millions of acres of land in the West Coast.² By October, the fatality count reached 41. Cal Fire Assistant Deputy Director Daniel Berlant called it the worst season on record as crews worked to contain 23 fires.³

In an interview with MSN, Berlant describes the difficulty in fighting these fires in conditions with limited to no visibility, restricting the use of aircraft. Beyond tactical challenges with these fires, there was an increased burden to crews. Many firefighters worked 24-36-hour shifts, with limited breaks between shifts due to agencies struggling to bring in reinforcements.³

Sacramento Fire Department Deputy Fire Chief Niko King also laments how the fire season has become relentless. "Fire season used to begin in June and shift to just the lower half of the state around October of each year. Recently, it seems fire season hasn't gone away," King says.

Beyond loss of life, 5,700 homes and businesses were destroyed. The California Department of Insurance reports costs of \$12 billion from October-December fires, making the 2017 fire season the costliest on record.¹



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Contributing Factors

The U.S. Department of Interior credits humans for 90% of wildland fires in the U.S.¹ Fires start from various sources, including seemingly benign negligence like unattended campfires or carelessly discarded cigarettes, to deliberate causes like arson. Regardless, this leaves only a small percentage -- the remaining 10% -- due to lightning and lava.¹ With humans being a majority of the cause, what is the fire industry or supporting communities doing to limit these factors and drive a decrease in wildfires? It starts with awareness.

The U.S. Forest Service promotes several campaigns that focus on prevention and awareness of wildfires: Fire Adapted Communities, Community Wildfire Protection Plans, and Firewise.⁴ One of these programs, Firewise, is coordinated by multiple agencies and aims to protect people from risk before a wildland fire approaches. These efforts arm the community with information about how to respond when a fire starts.

But even with best efforts to eliminate human negligence as a driving force for wildfires, a volatile environment remains. The observable increase in wildfires, extensive seasons, and mass destruction puts the potential influence of climate change at the center of the debate. Rising global temperatures result in drier vegetation that is more susceptible to catching fire. In an article published in *Scientific American*, Director of Western Partnership for Wildland Fire Science Mike Flannigan says, "A warmer world will have drier fuels. Drier fuels will mean it's easier for fires to start and spread."⁵

Other environmental factors at play are earlier Spring seasons and therefore longer periods of time with vegetation ripe for wildfire. In California alone, wind patterns like the strong Diablo winds in the northern region and Santa Ana winds in the southern region could also be contributing to longer burns.

A 2016 study on anthropogenic climate change looked at data from 2000-2015, finding both climate change and natural climate variability to be important factors. The study also found that there's now an additional nine days with high fire potential per year.⁶

As wildfires burn, they release carbon emissions, which exacerbates climate change creating somewhat of a vicious cycle.⁵ This is of greatest concern in North America and Eurasia because of higher deposits of carbon-rich peat, meaning each fire releases more carbon accumulation. Some scientists fear this climate change feedback loop means more and more fires without hope of slowing down.⁵

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Mike Flannigan
Director of Western Partnership for
Wildland Fire Science

Resource Constraints

Despite an increased need for firefighters during extended wildfire seasons, resource challenges range from firefighters available to overall cost of fire operations, with shrinking support.

Deputy Fire Chief Niko King recalls the challenges this past year with finding available firefighters and overtaxed crew members. “At the end of 2017 is the first time in my 25-year career that I can recall having firefighters miss Christmas with their families because they were still out on assignment,” says King.

Local government fire agencies work together in states like California to create a mutual aid process that efficiently allocates resources with increased demand, but it’s not yet a perfect process. “The careful balance of managing resources responding to the day-to-day demands within our local response area versus adding to the pool of resources needed to battle the larger catastrophic fires up and down the state has become a nuanced science needing refinement. In the end, our firefighters are spending more time on emergencies and longer exhausting incidents than we’ve seen in past decades,” says King.

Meanwhile other states struggle with budget cuts limiting their ability to perform. Toward the end of 2017, Milwaukee mayor Tom Barrett proposed an unpopular 2018 budget with deep cuts to public safety, including the closure of six fire stations.⁷

Tucson has had similar challenges. In 2016, Tucson Fire Chief Jim Critchley proposed a \$4.7 million budget cut after the City Manager Michael Ortega asked city departments to address the city’s deficit.⁸ In February 2018, 22 firefighters resigned from the City of South Tucson Fire Department out of frustration with the budget cuts. After losing firefighters in 2017 from the cuts, remaining firefighters reached their limit when the city suggested additional cuts, such as having three firefighters on engines instead of four.⁹ In an interview with local news channel KGUN 9, former Fire Captain Rick Raimondi says, “If you have three [personnel on an engine], you’re either going to put yourself in great danger by performing a rescue, or you’re going to lose lives – citizen lives – because you’re not going to have back up.”

While state and local governments struggle to fund fire services appropriately, federal funding for wildland firefighting services is slightly more encouraging. February 2018 brought a two-year spending pact that injects an additional \$90 billion to relief efforts for natural disasters and wildfires.¹⁰

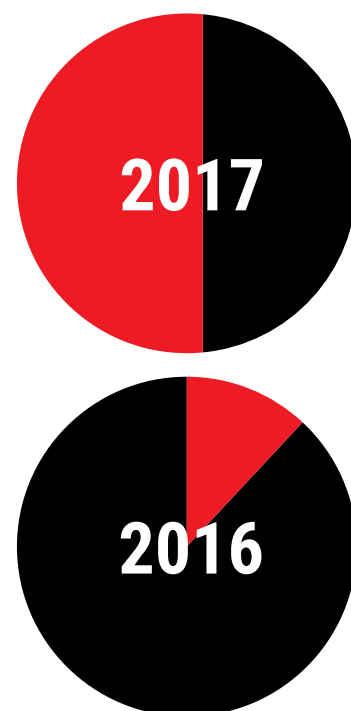
Driving pressure to change the federal position on funding are individuals like the U.S. Secretary of Agriculture Sonny Perdue. In September 2017, the U.S. Forest Service reported spending exceeding \$2 billion, an unparalleled expenditure, with fire suppression accounting for 55% of the total budget (up from 15% the previous year).¹¹ In a press release from the U.S. Department of Agriculture, Forest Service Chief Tony Tooke says, “We are breaking records in terms of dollars spent, acres of National Forest land burned, and the increased duration of fires.”

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- Rick Raimondi
Fire Captain

U.S. Forest Service Total Budget

■ % SPENT ON FIRE SUPPRESSION



Solutions

With wildfires showing no signs of slowing down, many fire departments are forced to come up with workable solutions on the local level.

“State and local governments, in the presence of a declared disaster, have some recourse to recover their expenses, including overtime and the like. With that said, every jurisdiction needs to have in place a matrix for what they seek to recover as an itemized cost of these fires. The paperwork is onerous and requires exacting detail if one wants to be paid,” says Florida-based Fire Lieutenant Paul Costello, who’s a 23-year veteran.

Another option fire departments have is to change staffing assignments at slower stations. In 2017, Kern County Fire Department reduced staff at nine stations from three-person shifts to two-person shifts. They retained the ability to add staff for emergency situations, but this reduction allowed the department to reduce overtime costs between \$2-3 million annually without cutting any actual personnel.¹²

Overtime costs are a huge factor for fire department budgets. At a certain point, if you’re paying out time-and-a-half shifts, it makes more sense to hire additional personnel. San Diego Fire-Rescue Department received some criticism for one firefighter being paid \$210,500 in overtime costs alone for 2014, which was not the highest overtime payout that year.¹³

However, President of San Diego Fire Fighters Local 145 Alan Arrollado points out that it’s not the simplest of calculation or comparisons to make. “A firefighter’s workday is three times as long as a normal person’s workday,” he said. “When we start throwing out numbers about the volume of hours that somebody works, we start equating those to other jobs, and you can’t draw that equivalency,” he told the San Diego Union-Tribune.

Another way to demonstrate fire department value and start tying together the numbers is a department’s Insurance Service office (ISO) rating. Some argue that an ISO rating is the perfect way to combat the argument to cut costs for the fire industry. Expanding the need of the fire department with increased fires and an increase in medical calls to serve the population results in a higher demand of services. For city managers and developers, the fire service’s ISO rating is a critical indicator for success in planning new projects for the community.¹⁴

There are many components to the ISO rating, including fire service personnel and training, as well as the age and condition of equipment.¹⁴ Investing in good equipment and fire department infrastructure has a direct impact on a fire department’s ISO rating, and thus in some cases, their perceived value in the community. In such challenging times, selecting the right equipment is paramount.



SPITFIRE™ PACK AND SLAYER™ WILDLAND CLOTHING



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Using the right tools

Firefighter Chris Wilden from Unitah City Fire Department stressed the important role of gear in his experiences in September 2017. His volunteer department had a wildfire start in their small community in Utah that spread from 10 acres to 25 acres in 10 minutes. A wildfire veteran who had seen many wildfires in his time could not recall a fire ever spreading so quickly.

"I've been using the True North Spitfire pack for two seasons now and have convinced three others on my department to [purchase them]," Wilden says. Wilden was exposed to high winds and harsh conditions for 15 hours before he was able to move into rehabilitation. Wilden encourages all his firefighters to purchase True North because of its durability and lifetime material warranty.

"[My pack] has rode on the side of the truck and NEVER let me down," Wilden says.

Carl Haddon, formerly with North Fork Fire Department in Idaho spent the first 20 years of his fire career in California. When he left California in 2003 for Idaho, he was asked to get up to speed quickly on wildland firefighting. His first purchase was a True North Firefly wildland pack. In addition to wildland fire fighting, Haddon used this pack for 14 years on backcountry rescue, whitewater rescue, and wilderness medical response before passing it on to his youngest son, a recent inductee into wildland fire fighting.

True North is a company focused on delivering innovative products to serve the fire industry. Their product's long-lasting durability has made them a favorite amongst many wildland firefighters like Jeremy Peyton, who work long shifts during even longer fire seasons.

"Almost 10,000 acres burned from January to May 2017. All [firefighting was] done by hand and helicopter ignition. Several 14-day rolls and one 21-day roll, yet my True North pack and harness never flinched," says Jeremy Peyton of South Carolina USFS.

"I've been using the True North Spitfire pack for two seasons now and have convinced three others on my department to purchase them"

- Chris Wilden
Unitah City Fire Department



FIREFLY™ PACK

About True North

True North has invested over 25 years into the research, design and manufacturing of durable and innovative packs and bags designed to offer tested, dependable gear options to wildland fire crews. The company founder, Alyx Fier, began the company in his garage with a home sewing machine and cardboard boxes for pattern paper after he saw the fire community's need for dependable, accessible gear that was intentionally designed around customer needs. Since then, True North has grown from a one-person operation to an ISO 9001 registered company whose products are distributed worldwide.

"Over 25 years ago, our team realized there was significant unmet need in the market for comfortable, functional wildland gear, and we reshaped the business of True North to deliver solutions to the wildland community. The result are packs that are extremely durable, comfortable and ergonomically optimal for load carrying abilities," says True North Product Development Manager Michael Batson.

Over the years, the company has continued to champion Alyx's tradition of seeking out and harnessing user feedback to create new, innovative solutions within the product line, or reworking existing designs to respond to user needs. Additionally, the company donates their protective gear in order to support and protect the lives of first responders around the world who may not have the resources to buy it.

"At True North, our mission stretches beyond the customary work of just designing and delivering a quality product, and encompasses our desire to support and protect those first responders in the fire community that may not have access or means to obtain quality, durable gear. That's why we frequently donate True North fire products to volunteer departments across the country, and why we partner with Brothers Without Borders to send our gear to South America where fire departments are sorely under-equipped," says True North Marketing Manager Jacqueline LeClair.

For more information, please visit www.truenorthgear.com.



REFERENCES

1. <https://www.iii.org/fact-statistic/facts-statistics-wildfires>
2. <http://www.businessinsider.com/wildfire-season-western-us-2017-9>
3. <https://www.msn.com/en-us/lifestyle/financenews/cal-fire-assistant-deputy-director-on-wine-country-firefight/vp-AAAtBvn>
4. https://www.fs.fed.us/fire/prev_ed/index.html
5. <https://www.scientificamerican.com/article/heres-what-we-know-about-wildfires-and-climate-change/>
6. <http://www.pnas.org/content/113/42/11770>
7. <http://fox6now.com/2017/09/26/only-so-much-money-2018-budget-plan-may-close-fire-stations-add-response-times-across-milwaukee/>
8. <https://www.firechief.com/2016/03/17/tucson-fire-chief-proposes-4-7m-budget-cut/>
9. <https://www.kgun9.com/news/local-news/twenty-two-city-of-south-tucson-firefighters-resign-after-budget-cut-concerns>
10. <https://www.npr.org/2018/02/09/584431561/government-funding-lapses-while-congress-looks-to-vote-on-budget-deal>
11. <https://www.usda.gov/media/press-releases/2017/09/14/forest-service-wildland-fire-suppression-costs-exceed-2-billion>
12. <https://www.turnto23.com/news/local-news/kern-county-fire-department-making-budget-cuts-to-combat-deficit>
13. <https://www.firerescue1.com/fire-chief/articles/48089018-Auditor-Overtime-is-no-longer-cheaper-than-hiring-firefighters/>
14. <https://www.firerescue1.com/fire-chief/articles/368792018-Using-ISO-rating-and-accreditation-to-justify-fire-service-budget/>