

The Great Fire of 1910



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The Fire

No official cause was ever listed for the 1910 fire. But 1910 was also the driest year in anyone's memory. Snows melted early and the spring rains never came. By June, the woods were on fire in a hundred different places. Loggers, homesteaders and campers started some of the blazes accidentally. Others were thought to be the work of arsonists, possibly transient firefighters trying to insure future employment.

However, it appears the largest single contributor was the newly constructed Chicago, Milwaukee and Puget Sound Railway, which followed the St Joe River east from St. Maries to Avery, Idaho. It then disappeared into the densely timbered Bitterroot Mountains, emerging again near Taft, Montana.

In a 1911 report, a supervisor on the Coeur d'Alene National Forest estimated more than 100 fires were started by coal-powered locomotives that frequently spewed red-hot cinders into tinder-dry forests. The railroad hired spotters to walk the tracks and douse flare-ups, but as summer wore on the inevitable drew near.

By August, normally swift-running rivers had slowed to a crawl and many streams had simply disappeared into bedrock. A bad electrical storm the night of July 15 touched off a large number of fires in North Idaho.

It was one of the largest forest fires in American history. Maybe even one of the largest forest fire ever anywhere in the world. No one knows for sure, but even now, it is hard to put into words what it did. For two terrifying days and night's - August 20 and 21, 1910 - the fire raged across three million acres of virgin timberland in northern Idaho and western Montana.

Many thought the world would end, and for 86 fire victims, it did. Most of what was destroyed fell to hurricane-force winds that turned the fire into a blowtorch. Re-constructing what happened, leads to an almost impossible conclusion: Most of the devastation occurred in a six-hour period.

A forester wrote of flames shooting hundreds of feet in the air, "fanned by a tornadic wind so violent that the flames flattened out ahead, swooping to earth in great darting curves, truly a veritable red demon from hell."

Depending on who was doing the counting, there were either 1,736 fires burning in northern Idaho and western Montana on August 19, or there were 3,000. Most of the fires were under control. Then, on Saturday afternoon, August 20, all hell broke lose. Hurricane-force winds, unlike anything seen since, roared across the rolling country of eastern Washington. Then on into Idaho and Montana forests that were so dry they crackled underfoot. In a matter of hours, fires became firestorms, and trees by the millions became exploding candles.

Millions more trees, sucked from the ground, roots and all, became flying blowtorches. It was dark by four in the afternoon, save for wind-powered fireballs that rolled from ridge top to ridge top at seventy miles an hour. They leaped canyons a half-mile wide in one fluid motion. Entire mountainsides ignited in an instant. "The fire turned trees into weird torches that exploded like Roman candles," one survivor told a reporter. It was like nothing anyone had ever seen before.

By noon on the twenty-first, daylight was dark as far north as Saskatoon, Canada, as far south as Denver, and as far east as Watertown, New York. To the west, the sky was so filled with smoke, ships 500 miles at sea could not navigate by the stars. Smoke turned the sun an eerie copper color in Boston. Soot fell on the ice in Greenland.

After August 22, the winds slowed and temperatures dropped. On the night of the 23rd, a general light rain, with snow in the higher elevations eventually checked the flames.

The Aftermath

Eighty-six people died in the Big Blowup, most were fire fighters on the front lines of the fire. Hundreds more survived, many by the grace of God. Ranger Edward Pulaski, led men with prayers on their lips through a pitch-black darkness punctuated by exploding trees and waves of flames that arced across the night sky. Pulaski saved most of his 45-man crew in a mine portal in a narrow canyon over taken by a firestorm on all sides.

The Great Fire of 1910 burned three million acres and killed enough timber to fill a freight train 2,400 miles long. Merchantable timber destroyed was estimated to be eight billion board feet, or enough wood to build 800,000 houses. 20 million acres were burned across the entire Northwest

Entire towns were destroyed. Wallace, Idaho was in the direct path of the raging fire. Citizens, mostly women and children, boarded trains to evacuate the threatened town. Others stayed and sprinkled roofs with hoses. Firemen patrolled the city and awaited the inevitable.

Smoking embers began falling in town and by 4 o'clock the dark. Smoky sky triggered the city street lamps. It was unmistakable to all that the town would burn, somehow, somewhere. Townsfolk heard a roar like the "the sound of a storm at sea." Another described the sound like "a thousand trains going over a thousand steel trestles." The mayor marshaled volunteers and busily fought fires throughout the city. Sunday dawned dark and stayed that way. The hillsides were blackened and a third of town was a smoldering fire pit.

The entire east end of the town of Wallace was burned down. "In some brick buildings only the walls were left standing, while nothing was left of the wood buildings. Of the furniture there was nothing left but the iron and steel parts, and those were sadly out of shape. All glassware was melted. Apples were baked on the trees.

In all directions there was nothing left but the burning stumps of once-beautiful trees. The downed monarchs of the forest, fallen to the ground, fed the fire along its entire length. There were hot ash-heaps where trees had criss-crossed in failing and met hot destruction together. Appalling desolation was everywhere.

The Great Fire of 1910 burned its way into the American conscience as no other fire had done. "Not ever before had a forest fire been given headlines so big or so black," "It managed to burn its way through public indifference and emerged as a charred but positive landmark along the road to forest protection."

There is no complete record of how much dead timber was salvaged. The best estimate is about 300 million board feet, less than 10 percent of what was killed. It took years to clear away dead timber that clogged trails.

A CCC crew in the 1930s recalled walking across narrow canyons on the backs of huge logs left behind by winds. The winds were so powerful that trees were sucked from the ground, roots and all, and tossed into the bottoms of canyons. In one place he estimated the wreckage was 50 feet deep, with a creek running beneath it.

Erosion was also a problem. "The fall rains brought down a vast amount of sheet erosion and many steep gullies were scoured out to bedrock." To make matters worse, "nearly all of the scorched trees were immediately attacked by bark beetles."

The fire fundamentally shaped Forest Service practices. The Great Fire of 1910 affected forest fire fighting policy of the nation and influenced forest management to this very day.

The Great Fire of 1910

Synopsis

The FIRE

It was one of the largest forest fires in American history.

But 1910 was the driest year in anyone's memory

Loggers, homesteaders and campers started some of the blazes accidentally.

The largest single contributor was the railroads.

It was estimated that more than 100 fires were started by coal-powered locomotives.

A bad electrical storm the night of July 15 touched off a large number of fires.

For two terrifying days and night's - August 20 and 21, 1910 - the fire raged across three million acres of virgin timberland in northern Idaho and western Montana.

Most of what was destroyed fell to hurricane-force winds that turned the fire into a blowtorch.

A forester wrote of flames shooting hundreds of feet in the air.

In a matter of hours, fires became firestorms, and trees by the millions became exploding candles.

Millions more trees, sucked from the ground, roots and all, became flying blowtorches.

Fireballs leaped canyons a half-mile wide in one fluid motion.

Entire mountainsides ignited in an instant.

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The AFTERMATH

Eighty-six people died in the Big Blowup, most were fire fighters on the front lines of the fire.

Ranger Edward Pulaski, led men to the relative safety of a mine tunnel.

The fire turned trees into weird torches that exploded like Roman candles.

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Citizens, mostly women and children, boarded trains to evacuate the threatened town.

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Blowup

from **The Big Burn** by Timothy Egan, pp. 154-157 (Chapter 10)

A wind out of the American West that tumbles in rollercoaster fashion is known as a Palouser, a Sahaptin Indian word that sounds poetic, named for the lilt of hills at the far eastern edge of Washington State, one of the most productive wheat-growing regions in the world. The skin of that land is lovely, stroked by easy breezes and nourished by soft rains in the spring. But the Palouse is one of those curious places in the West where a weather system can form benign and transform into something ferocious long after it has left the cradle of its creation. On one side is a desert, a high plateau that gets less rain than Phoenix in some years. On the other side are the well-watered forests of Idaho and Montana, with cooler air and steady moisture. When caught between the two extremes, the air over the Palouse can be volatile, or violent. So it was on the Saturday afternoon of August 20, when atmospheric conditions gave birth to a Palouser that lifted the red dirt of the hills and slammed into the forests-not as a gust or an episodic blow, but as a battering ram of forced air.

Stirring to life in midday, the wind rustled the tawny heads of wheat and tall grass before jumping over the Snake River into Idaho and barreling north into the Nez Perce National Forest, the longtime home of Indians who had saved Lewis and Clark from starvation. The Nez Perce country was open and park-like, with birches, cottonwoods, and big pines, room enough for the wind to bounce around, fresh spring in its step after every impact. In the canyons of the Clearwater National Forest, the air climbed swiftly through the mountains. The big river that gave the forest its name, flat and glassy in the lazy part of the day, became white-capped and shaggy as the Palouser raked over it. When it ran into walls of ancient rock, the wind compacted and accelerated. Forcing its way upward, following the contours of the land, the racing wind hit the first fires in a mix of pines at lower elevations. These fires had been ignored by the Forest Service, left to burn out once the underbrush was consumed. The wind took the hot floor of the simmering forest and threw it into the air, where it lit the boughs of bigger ponderosas and white pines, which snapped off and also rode the force of upward acceleration. Pine sap heated quickly and hissed as it reached a boiling point. Every headwall, every dead end of a canyon, every narrow valley served as a chimney, compressing the fire-laden air into funnels of flame.

The chain reaction of a wildfire had begun. Heated plant matter released hydrogen and carbon while drawing in oxygen, and the whole of it was on the run, a weather system of its own. Thus, three small blazes in grass met six bigger ones in the lower forest and then merged with a dozen others before joining twenty or thirty more, until the mass was bundled into a single wall of yellow and orange moving upward at fifty miles an hour into the crowded zone of Douglas fir, spruce, and larch, into groves of wizened hardwoods and withered cedars next to dried-up streams, moving faster than a horse could run. All at once, it burned at the scrub and limbs of the lower tier of the forest, it burned at thick midheight, it burned large boughs, which broke away in the storm, huge cones popping in fireballs, and it burned at the crowns, the highest tips of the trees exploding into the air, flying off to light the crowns of other tall trees. The densest part of the forest, between three and five thousand feet above sea level, was ready-to-burn fiber when the flames moved through it. In pops and cracks and snaps and gulps, in gasps and whistles, the fire metastasized -more clamorous with every fresh intake, charging ahead. Any

leftover little fire that might have smoldered and smoked in a last gasp was given new life by the wind, yanked from the ground, pitched into the river of flame, into the current of the now unrecognizable Palouser.

Midway through the Clearwater, the wall of flame took over the forest, hundreds of feet high, at least thirty miles wide in some parts, and still gaining strength, still fanning out, consuming oxygen in heaves, and picking up intensity as its core temperature rose. The fire was a classic convection engine now: heat rising, pulling the hottest elements upward, a gyro of spark and flame. After racing through the Clearwater and Nez Perce forests, leveling nearly all living things in the Kelly Creek region, the fire swept up trees at the highest elevations. At this altitude, along the spine of the Bitterroots, the wind moved without obstruction, and the fire itself threw brands ten miles or more ahead of the flame front. The storm found the Montana border and spit flames down into the heavily settled Bitterroot Valley. It found the Lolo forest and crossed over the pass and along the summits, jumping ridgeline to ridgeline. At the peak of its power, it found the Coeur d'Alene forest, leading with a punch of wind that knocked down thousands of trees before the flames took out the rest of the woods. By now, the conscripted air was no longer a Palouser but a firestorm of hurricane-force winds, in excess of eighty miles an hour. What had been nearly three thousand small fires throughout a three-state region of the northern Rockies had grown to a single large burn.

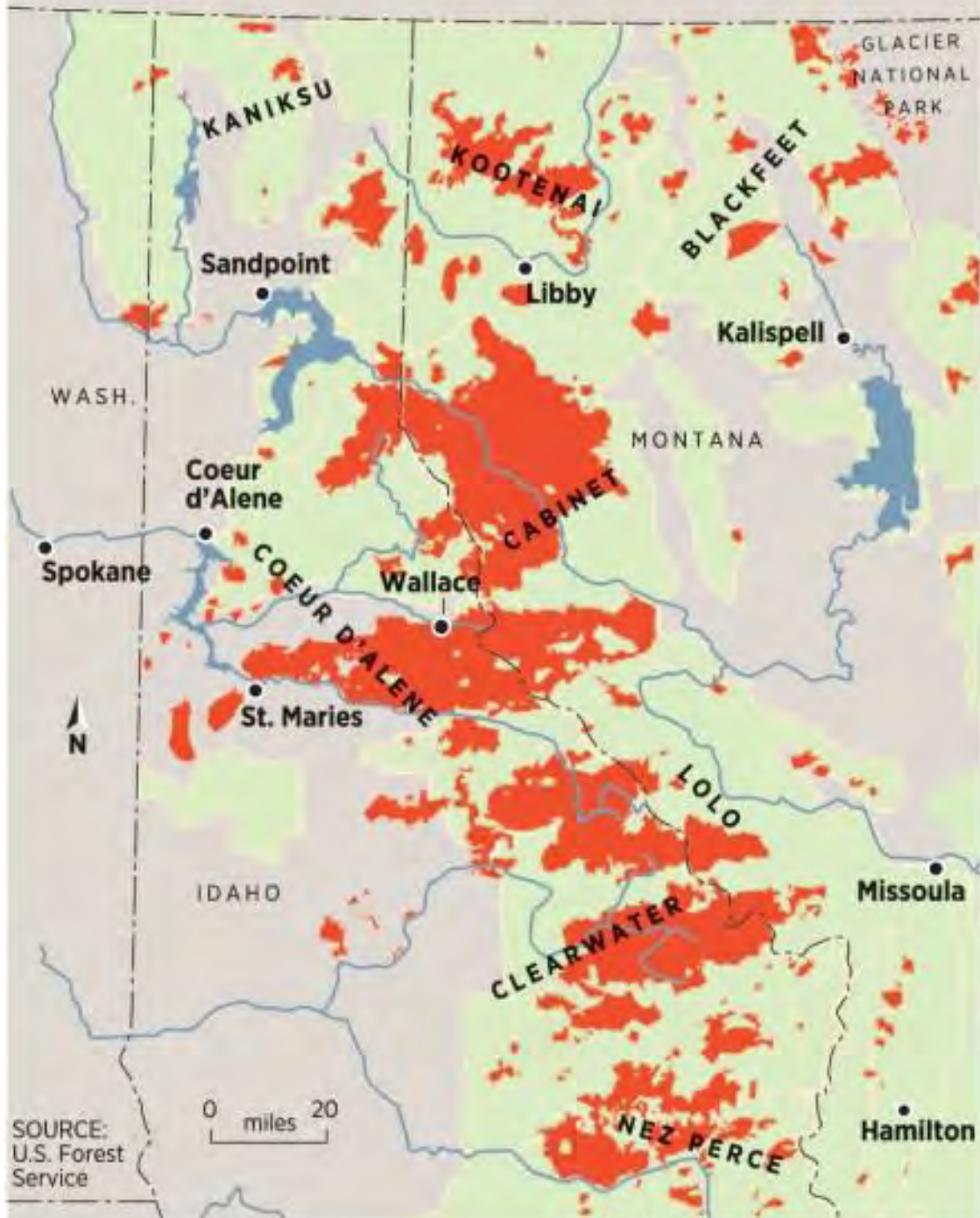
The advance force of the firestorm, just ahead of the flame wall, was so strong it uprooted bark-armored trees that had held to a piece of ground for three centuries or more. Entire sections of the forest were mowed down as if they were blades of grass. Deer were trapped by falling timbers; some were crushed, others suffocated. Smaller animals emerged from shelter in the hollows of trees, driven out by heat and smoke, only to die in the collapsing forest. Funnels, columns, and whirlwinds formed within the storm, each breaking out in a separate dance of gas and flames. Explosions and the charge of the wind brought a sound that shook any leaf or limb not consumed by flame.

Through the Coeur d'Alene that night, the burn picked up every fire along the ridge separating Wallace from Avery, every fire in the upper reaches of the St. Joe, and every fire downriver. Its only imperative was to find more fuel. It moved west, downstream, toward the towns of St. Maries and Coeur d'Alene and close to Spokane, and it moved east, up the Bitterroots, toward Grand Forks and Taft, over the divide, toward Missoula. It moved northeast, into the Cabinet and Pend Oreille forests, across the Canadian border into British Columbia, and farther still to Glacier Park and the Blackfoot and Flathead forests. Firebrands were tossed ten miles or more, torching the ground ahead of the incendiary waves. As the storm approached a piece of untouched ground, it announced itself with a roar and a light on the horizon and finished with a sea of flames, suffocating the woods. If there was a river in the way, the fire leapt over water. If there was a lake in the way, it rode its own wind to the other side and alighted on fresh timber. If there was a town in the way, it engulfed it without blinking, exploding a barrel of kerosene or a tank of oil, taking tents and timber, taking shellacked houses and plank sidewalks and cedar-shake churches, all ready for the burn.

1910 fire

■ Area burned

■ National forests in 1910



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