

Incident Summary Page for the 100 Fires Project

<b>Incident Name:</b> Blackwater Fire	<b>Incident Date &amp; Time:</b> 08/21/1937 @ 15:45
<b>Incident Location:</b> Shoshone National Forest, Wapaiti Ranger District, between Yellowstone National Park and Cody, Wyoming	<b>Incident Size:</b> 1,700 acres
<b>Types of resources involved:</b> Civilian Conservation Corps crews, Bureau of Public Roads crew, and US Forest Service employees	<b># of Fatalities/injuries:</b> 15 fatalities / 38 injuries
<b>Reasons this fire was selected for the 100 Fires list:</b>	
<ul style="list-style-type: none"> <li>➤ Fire is historically significant</li> <li>➤ 3 or more firefighter fatalities</li> </ul>	
<b>Conditions leading up to the event:</b>	
<p>The Civilian Conservation Corp (CCC) crews of the 1930s were formed under Franklin D. Roosevelt’s New Deal in the hopes of relieving unemployment by providing conservation work across the nation. A major emphasis for the CCC program was the construction of US Forest Service and National Park Service infrastructure, including the ubiquitous "Guard Stations" found throughout the country. The CCC was run by the War Department and fire suppression command, control and the organization was modeled after the military. Each camp had a camp commander, an assistant commander, a lieutenant, a doctor and an education advisor; all these positions were US Army personnel. However when utilized as fire crews, they were trained and supervised by specific government land management agencies. Training for firefighting was cursory at best. Crews generally consisted of 20-25 people. These crews were involved in firefighting around the country. Each camp was assigned a fleet of trucks, tractors and basic fire tools. The knowledge and experience of how to fight wildland fires was very elementary at this time. Not only were communications done through handwritten notes with runners, but logistical supplies were delivered via horse pack strings. Aerial support was non-existent and there was no 10 Standard Firefighting Orders or personal protective equipment. Enrollees wore denim jeans, a full brim felt hat, and simple flat soled boots.</p>	
<b>Brief description of the event:</b>	
<p>On Wednesday, August 18, 1937 an electrical storm occurred in the general vicinity of Blackwater Creek along the Shoshone River drainage, causing a fire which was not detected until Friday August 20. The temperature that day was 85 degrees with a relative humidity of 16 percent. Under these conditions the smoke was rising vertically. The day has been described as <i>“hot and dry, with the sun boiling down and no discernible winds.”</i></p> <p>At the time of detection, the fire appeared to be only two acres in size and was located in the drainage bottom. By the evening of Friday, August 20, the nighttime winds had pushed the fire to approximately 200 acres, and there were 58 firefighters and seven overhead constructing fireline in an orderly manner and with good speed. Early Saturday morning the manpower was about evenly distributed along the two main flanks of the fire. When more crews finally arrived after 13:00, line construction advanced to the east on the hottest section of fireline. But a blow-up of the fire occurred at approximately 15:45 caused by the combination of an undiscovered spot fire and the passage of a dry cold front. In this conflagration, nine deaths occurred directly. Six other firefighters were so badly burned that they died later, and 38 additional firefighters suffered injuries.</p> <p>Preliminary reports on this lightning fire showed that initial action was remarkably vigorous, considering the remote location of the fire and that the Shoshone National Forest was considered a low-danger forest. The forest didn't even have lookout stations. At the time, the Blackwater Fire was responsible for the largest loss of life from a single national forest fire since 1910.</p>	
<b>Fire behavior factors that were present during the event:</b>	
<p>The fire behavior report for the Blackwater Fire and identified the following factors as key to the “Blow-up”:</p> <ul style="list-style-type: none"> <li>➤ The ragged edge of the fire.</li> <li>➤ Under burning of surface fuels that pre-heated the canopy crown.</li> <li>➤ The heavy fuels that the fire burned in – today’s Fuel Model 10.</li> <li>➤ Spot fires.</li> </ul> <p>Looking back with today’s fire behavior knowledge we can also add these factors:</p> <p><b>Frontal Passage</b> - The most obvious but overlooked due to the limited understanding of fire weather at the time, was the passage of a dry cold front. The winds shifted from southwest to northwest and increased to 30 mph.</p>	

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**Terrain** - The orientation of the fire within the North Fork of the Shoshone River drainage could help funnel and increase wind speed over the fire area with the passage of the northwest cold front.

**Drought** - The long-term drought of the 1930s “Dust Bowl” years would have intensified by 1937 contributing to the explosive conditions.

**Operational lessons available for learning from this incident:**

The system used for communication was inadequate.

The local cooperators failed to turn out as per the fire plan.

The probability of a diurnal wind Friday night was not a part of the calculation.

The failure of the Tensleep crew to arrive earlier on Saturday contributed to the disaster.

Some unburned fuel was left above the line and there was under burning of the surface fuels which pre-heated the canopy.

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

The Blackwater Fire was the first fatality fire to have a formal investigation into the events immediately after the incident. The fire investigation was conducted by David P. Godwin, the Assistant Chief of Fire Management for the US Forest Service. He was able to work through the Blackwater disaster and initiate positive actions to develop a new and faster way to put "smokechasers" on the line. Godwin ultimately concluded units needed to be on the scene much earlier, and two years after the Blackwater Fire he authorized funds to carry out parachute jumping experiments linked to fire suppression. The federal government's smokejumper program, initially tested in Winthrop, Washington and at two locations in Montana, was born.

**Links to more information on this incident:**

- <https://www.nwcg.gov/wfldp/toolbox/staff-ride/library/blackwater-fire>
- <https://wlfalwaysremember.net/1937/08/21/blackwater/>
- <https://wildfiretoday.com/2012/05/15/blackwater-fire-of-1937-remembered/>
- <https://www.wyohistory.org/encyclopedia/deadly-blackwater-fire>
- <http://forestarmy.blogspot.com/2007/08/death-on-fire-line-blackwater-fire-of.html>

**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/wildfire-lessons-learned-center/incident-review-database)

**This summary page was proudly provided by:**

Randy Skelton, former Superintendent Boise Hotshots

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**The Blackwater Fire Memorial is built along the highway between Yellowstone National Park and Cody, Wyoming. It honors all those who perished on the fire:**

Alfred G. Clayton	South Fork District Ranger, Shoshone National Forest, age 45
James T. Saban	Tensleep CCC Camp Foreman (former Forest Ranger on Medicine Bow and Chippewa NFs), age 36
Rex A. Hale Jr.	Wapiti CCC Camp Assistant Technician, Shoshone National Forest, age 21
Paul E. Tyrrell	Junior Forester, Bighorn National Forest, age 24 (died later at the hospital in Cody, Wyoming)
Billy Lea	Bureau of Public Roads crewman, originally from Oregon (died later at the hospital in Cody, Wyoming)

**CCC enrollees from the Tensleep Camp F-35, Company 1811; assigned to the Bighorn National Forest 3 months earlier this company was reassigned from Bastrop, Texas...they were all between 17 to 20 years old**

John B. Gerdes	from Hallettsville, Texas
Will C. Griffith	from Bastrop, Texas
Mack T. Mayabb	from Smithville, Texas
George E. Rodgers	from George, Texas
Roy Bevens	from Smithville, Texas (died later at the hospital in Cody, Wyoming)
Clyde Allen	from McDade, Texas
Ernest Seelke	from LaGrange, Texas
Rubin D. Sherry	from Smithville, Texas
William Whitlock	from Austin, Texas (died later at the hospital in Cody, Wyoming)
Ambrocio Garza	from Corpus Christi, Texas (died later at the hospital in Cody, Wyoming)



## Blackwater Creek fire

- ① Rock point where Ranger Post took refuge with 40 men.
- ② Point where Ranger Clayton, Foreman Saban and Hale with 4 CCC enrollees were burned to death.
- Fireline being worked just before tragedy
- Final control line of fire
- \* Starting point of fire





This monument was erected by CCC crews at the actual fatality site the next year after the tragedy.



Memorial to CCC company 1811 near Tensleep, Wyoming