	Incident Date & Time: 07/22/1977 @ 16:00 to 18:000
	Incident Size: 2300 acres
51	# of Fatalities/injuries: 4 fatalities

Reasons this fire was selected for the 100 Fires list:

➢ Fire is historically significant

➢ 3 or more firefighter fatalities by entrapment

Conditions leading up to the event:

Traditionally, the Pine Barrens in southern New Jersey are noted for major wildland fires during times of drought. The combination of dry fuel, drought, and dry frontal passages can produce rapidly spreading surface and crown fires. Spread rates of these fires can be among the greatest in the country. Summer normally brings green foliage and frequent rains, thus ending the fireseason. However, in 1977, after some rain in June, drought conditions returned in July.

At the Atlantic City National Weather Service office, which is representative of the Pine Barrens, precipitation recorded during the first six months of 1977 was 41% below normal. A prolonged heat wave occurred from July 13 to July 21, with temperatures above 90°F on every day at many locations. On July 21, readings above 100°F were reported at some locations, this produced tinder dry fuels.

Brief description of the event:

The Bass River Fire started on the afternoon of July 22. A thick column of black smoke, indicating rapid burning, was spotted by a lookout tower at approximately 15:00. Initial attack resources were dispatched immediately to the scene with additional fire equipment dispatched at 15:25. By 15:40 there were nine fire units working the 100 acre fire.

At 15:45 Eagleswood Brush Truck 731, a 10-wheel tank truck, with Eagleswood Fire Chief Harold (Skip) E. Cranmer, Assistant Chief Marcus P. Cullen, Fireman John Baker and Fireman Herbert Blackwell arrived on the fire and contacted the Incident Commander (IC) by radio. They were instructed by the IC to "Hit the line and turn to your right, that would be south, and try to catch her. We might have to move out to the other side. Theres a tractor plow there on the line and meet him and follow him down when you get to him let us know." Brush 731 was operating on their local frequency and the IC was operating on the state frequency. However, the IC could switch manually between the two as needed. Brush 731 did not acknowledge these instructions.

At 15:47 the IC ordered all units to pull out to Coal Road, Brush 731 failed to acknowledge this order also. After a failed firing attempt on Coal Road, the IC ordered all units on the fire to the Dans Bridge Road at 16:12. Here the IC directed a north to south firing operation on Dans Bridge Road. By 16:30 this firing operations was also lost. At this time the fire was estimated at approximately 500 acres.

Between 16:30 and 17:00 the personnel on the fire and local lookout towers reported significant wind shifts. First, at 16:30 the wind shifted from northwest to southwest. At 16:50 the winds shifted again and came from the northeast. Once the fire crossed Dans Bridge Road it began to move to the southeast. The fire moved rapidly at both the head and laterally along the flanks due to horizonal roll vortex activity. When the fire transitioned from being wind driven to plume dominated, it covered 2.5 miles in two hours.

From the time Brush 731 arrived on the incident and made their initial contact, there was no confirmed follow-up communication with the crew. Between 16:52 and 17:02 attempts were made to contact Brush 731 and there was garbled radio traffic which may have been from Brush 731 but no confirmed contact was made.

At 18:00, a reconnaissance helicopter spotted the charred truck near the location of the original right flank. At 18:15, a search team located the bodies of the four men. Two of the bodies were discovered 35 feet from the truck and the other two were approximately 600 feet away. Since their exact actions could not be determined, the report findings surmised they became entrapped sometime between 16:00 and 18:00.

The Bass River Fire was declared controlled the next day. A total of 2,300 acres were burned with most of this occurring in the 3-hour period from 15:00 to 18:00 on July 22. The exact cause of the fire was never determined, but arson was suspected.

Exceptional drought conditions.

Competing and conflicting dry frontal passages leading to ground-based horizontal roll vortices creating extreme fire conditions in isolated areas along the flanks of the fire.

The spotter in the Bass River Forest fire tower noted flames reaching above canopy height which indicates flame heights of perhaps 40 or 50 feet. An observer a few miles away noted a prominent convective column over the Bass River Fire. It was described as being *"capped by a white, billowy cloud"* which is a classic cumulus top indicating extreme convection. Although there were other fires in the area, the observer noted only this fire had a cumulus top. The convective column had maximum development between 15:00 and 18:00. At the time of blow-up, the convective column was also picked up on the Atlantic City radar scope, indicating a height of at least several thousand feet.

Operational lessons available for learning from this incident:

The fire history for an area should play an important part in the development of fire tactics. The Bass River Fire burned through an area not known for highly aggressive fire behavior in most circumstances, but with the capability and history of extreme fire behavior when conditions align. This has led to several fatal fires (Chatsworth 1936, Dutchtown Road in 1943, and Black Saturday in 1963) in very close proximity to the Bass River Fire. In the conditions found on these fires, the standard methods of initial attack, (direct attack using water in closed canopy timber and unanchored firing at the head of the fire) were overwhelmed with disastrous results.

During high tempo initial attack operations, it is incumbent on both responding resources and incident command to insure positive communication links are established and maintained.

The Bass River Fire shares much of the same footprint, the same memorial park, and many of the same lessons as the 1936 Chatsworth Fire where five men lost their lives...

Although death is inevitable, it is never without heartbreak. In this case the heartbreak is more poignant because all four men were in the prime of their lives; three were heads of households which depended upon them for livelihood. All were well respected in their community, and had a large number of friends. The trauma attendant upon the deaths of four brave firemen engenders greater personal feeling because of the small community in which they worked, lived and enjoyed life. It is highlighted by the fact the Volunteer Department was small in numbers, and each member had personal contact with others. One member of the department, with tears in his eyes, upon hearing of the deaths said, "To us this is like losing a brother or a son. We were that close."

Excerpt from an editorial in the July 28, 1977 Tuckerton Beacon newspaper

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

While this fire was not the specific reason for the adoption of national standards regarding training, physical fitness, Red Card qualifications, nomex use and fire shelter use; it is one in a string of multi-fatality fires* that occurred across the country in the late 1970s that drove home the need for such standards.

*1976 Battlement Creek Fire in Colorado; 1977 Cart Creek Fire in Utah; 1977 Bass River Fire in New Jersey; 1977 Honda Canyon Fire in California; and 1979 Spanish Ranch Fire in California.

Links to more information on this incident:	
http://www.bassriverhistory.org/uploads/6/8/7/1/6871754/h-gazette20oct_2006.pdf	
https://www.frames.gov/catalog/11652	
https://www.frames.gov/documents/usfs/fmt/fmt_63-4.pdf	
https://wlfalwaysremember.net/1977/07/22/bass-river-2/	
Video: <u>https://www.youtube.com/watch?v=UjBtJ_SBEXU</u>	
This summary page was proudly provided by:	
Jim Cook & Kurt La Rue	February 2025

Incident Summary Page for the 100 Fires Project



Sign at the entrance to the Bass River State Forest



Forest Firefighter Memorial at the Bass River State Forest

Incident Summary Page for the 100 Fires Project



Plaque at the memorial honoring the firefighters who perished on the Bass River Fire



Fire road in the Bass River State Forest near the fatality site