

SANDERSON INCIDENT REVIEW

Sanderson Fire
Baker County, Florida
April 7, 1988

Department of Agriculture & Consumer Services
Florida Division of Forestry
3125 Conner Blvd.
Tallahassee, FL 32399-1650

SANDERSON FIRE INCIDENT

SUMMARY

On Thursday, April 7, 1988, a fire was detected in a heavily wooded area north of Sanderson, in Baker County. The Lake City District Pilot, on patrol at the time, picked up the smoke from about 15 miles away. He proceeded to the scene.

Two tractor-plow units from Macclenny Work Center were dispatched to the fire. Their supervisor, at the Lake City District Office, was notified and immediately left for the fire. En route, he advised the pilot not to let one firefighter attack the fire by himself. Fire conditions were extreme, with high winds and low humidities. The pilot relayed those instructions to both firefighters, and positioned them at a road intersection approximately 1/2 - 3/4 mile from the head of the fire.

The wind was out of the west at that time. This placed the two crews on the right flank, with the fire running roughly parallel to them.

The two firefighters unloaded and prepared to catch any spot-overs that might occur on the east side of a road that the pilot had determined could possibly serve as a barrier to the fire's spread.

Almost immediately after they started to plow, the pilot saw a spot fire spring up on the west side of the road intersection, only 30-40 yards away from their position. He radioed the the crews to load up and get ready to move to another position.

As they were moving the tractors back to the transports, both firefighters noticed that a major wind shift had occurred, and the fire was now sweeping out of the north, and overrunning their position.

The transports were parked fairly close together, pointed up the road in an easterly direction. The firefighter in the lead unit loaded up and attempted to move forward to escape, but the escape route was blocked by the fire as it jumped the road ahead of them.

The firefighter in the rear transport had loaded his tractor, and attempted to raise and push in the ramps. Encountering difficulty with this task and pressured by the fire, he jumped in the transport and attempted to back down the road. This effort failed because of the extended ramps and stiff leg. He then abandoned the equipment and ran down the road. The firefighter in the lead unit, blocked by the fire in front of him and the immobilized transport behind him, also left the equipment to run for safety.

In the process, the lead unit firefighter lost his right glove. He ran down the road, shielding the right side of his face with his hard hat. He received first and second degree burns on his exposed hand, elbow, and neck. The other firefighter did not suffer any burn injuries.

Their supervisor arrived on the scene just in time to see the fire erupt over the firefighters and their equipment. He watched as both men ran to his position.

The supervisor immediately radioed for an ambulance. Shortly after, the rescue unit arrived, and both individuals were examined, and given medical attention. Later they were taken to the hospital by the district investigator, where they were checked and then released.

Both transport units were completely destroyed. However, the tractors received relatively minor damage, and were back in service the following week.

The fire was brought under control on April 8. It burned 1,920 acres.

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SANDERSON FIRE INCIDENT

SEQUENCE OF EVENTS

April 7, 1988

- 1457 Pilot Greg Boyette, on patrol, picks up smoke from about 15 miles away. Proceeds to fire.
- 1458 Ranger Larry Chestnut, at the Macclenny Work Center, is notified to proceed to a fire north of Sanderson.
- Pilot Boyette, over fire, advises that at least four tractors would be needed.
- 1513 Ranger David Harrell, at the Macclenny Work Center, hears the traffic. When D-6 dispatch calls him, he is already en route.
- FAS Frank Sorrells, at the Lake City District office, is notified of some incendiary sets north of Sanderson on SR 229 and leaves immediately. He is advised that two crews are en route. Sorrells contacts Boyette and advises him to put two crews together, that one Ranger should not initiate action alone.
- 1515 Chestnut arrives at the scene. He is advised by Boyette to move farther away from the fire, and to await the arrival of another crew before unloading.
- 1529 Harrell is directed by Boyette to turn off SR 229 on to Jack Dugger Road.
- 1530 District Investigator Fred Graves is en route to the fire.
- Chestnut is advised by Boyette to join Harrell, and for both crews to unload at the intersection of Jack Dugger Road and the North-South Break.
 - Harrell arrives first, unloads tractor, and waits for Chestnut. He notes that the wind appears to be blowing out of the west.
- 1537 Over the fire, Boyette watches Harrell and Chestnut move into position. He notes that the head of the fire is a considerable distance (later determined to be from one-half to three-quarters of a mile) away from the crews, and moving parallel to their position. He estimates fire size to be 120 + acres.
- Harrell and Chestnut proceed to the east side of the North-South Break, with the intention of catching spot-overs. Harrell tentatively begin plowing.
 - Boyette watches from overhead. Over the radio, he hears their tractors running. He observes a spot flame up near the corner of Jack Dugger Road and the North-South Break, approximately 30-40 yards away

from the crews' position. He advises Harrell and Chestnut to move back to their transports and plan to move to another location.

- At this time Chestnut becomes aware that the wind is shifting. Both Harrell and Chestnut return to the road to load their tractors.

- As they arrive at the transports, Harrell observes that the fire has apparently shifted direction, now coming out of the north straight toward their location.

- Boyette, watching the action, observes the fire activity accelerate as the wind shifts. He sees Sorrells arrive at the entrance to Jack Dugger Road off SR 229. When Sorrells turns in, Boyette notes that "it was as if he had driven into a room with a ceiling." Smoke lies on top of the trees blocking Boyette's vision.

- Harrell's transport is in front of Chestnut's, with just room enough to load his tractor. He loads up. The fire is now on top of them. Harrell decides to drive straight ahead to try to outrun the fire. The fire jumps the road in front of them. He attempts to back up, but is blocked by Chestnut's vehicle.

- Chestnut loads his tractor. He determines that he does not have time to raise the ramps; he jumps in the transport and attempts to back out with the ramps and stiff leg down. The attempt fails, and he leaves the vehicle, running down the road.

1541

Sorrells, at the end of the road, has arrived just in time to see the fire open up "like an umbrella" over the tops of the transports and tractors.

- Harrell tries to remain inside his transport cab. He hears traffic indicating that Chestnut is running out of the woods. By now the fire has swept over the vehicles and is burning on both sides of the road. Harrell leaves his unit, and loses his right glove. He runs down the road toward Sorrells' location, covering the right side of his face with his hard hat, held in his left hand.

- Sorrells watches as both Rangers run toward him. Chestnut arrives, then Harrell. Harrell has burn injuries.

1543 Sorrells radios for an ambulance. A Baker County Rescue Unit arrives shortly afterward, and both men receive medical attention on the scene.

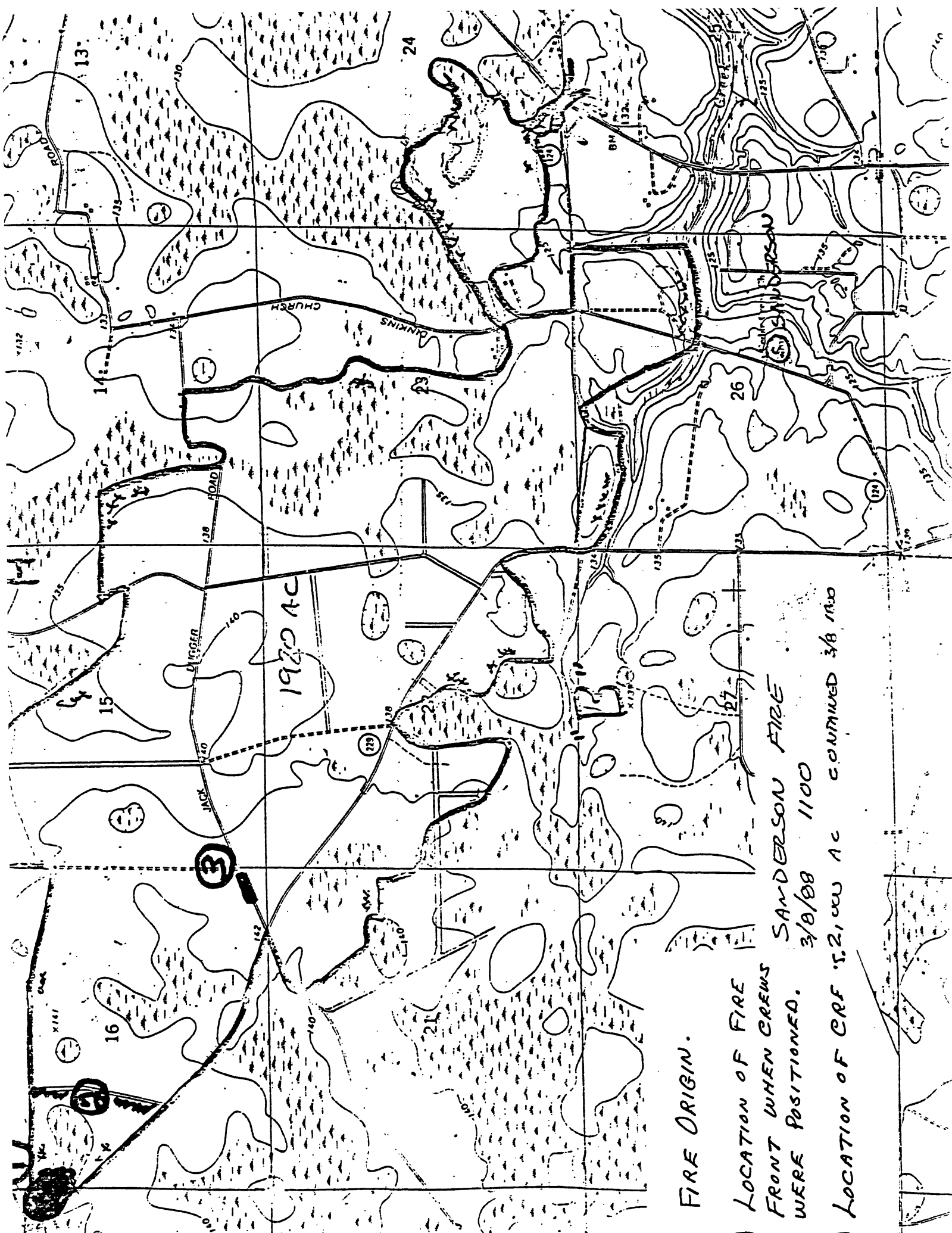
2145 Lake City District Investigator is en route to hospital with firefighters for medical checkup. They are examined and released.

FINDINGS

1. The fire was approximately one-half to three-quarters of a mile away when firefighters were positioned by the pilot to take suppression action.
2. The transports were parked on a deep sand, narrow road, with nearly a tree canopy cover over the units.
3. There were no direct communications between the firefighters after they started suppression action.
4. Observed burn patterns confirmed that a major wind shift had occurred. The sudden wind shift was the primary cause of the incident.
5. The fire burned through dense pine fuels (pine plantation-- approximately 22 years old.)
6. The transport units were completely destroyed.
7. Tractor damage was relatively minor, and both units were back in service the following week.
8. Although the winds were unusually high and humidity was quite low, the district set the Fire Readiness Level at 2, on the basis of low fire activity up until that day.
9. No formal Safety Alert was issued to fire personnel on April 7, 1988.
10. Fire shelters mounted on the tractors were inspected after the incident, and found to be in good condition.
11. Use of the fire shelter was never seriously considered by either firefighter. Both firefighters had received structured "hands-on" refresher training in the use of the fire shelter on March 10, 1988.
12. Evidence points to arson as probable fire cause.
13. The Fire Weather Forecast indicated an 18 MPH wind speed for April 7. However, the Jacksonville Airport Weather Station recorded 40 MPH gusts of wind in mid-afternoon.
14. Forest Ranger Larry Chestnut was employed in 1981, and completed Basic Fire Control Training (BFCT) in 1982. Forest Ranger David Harrell was employed in 1985 and completed BFCT in 1986. Pilot Greg Boyette was employed in 1984 and completed BFCT that year. Boyette completed the Intermediate Fire Behavior course in 1986.
15. Ten "Watch Out" situations were present.
16. Eight Fire Orders were not properly observed.

RECOMMENDATIONS

1. Fire weather forecasts and/or Fire Readiness Level changes issued by the field communication centers should require positive acknowledgement by firefighters and supervisors.
2. Some type of effective "Safety Alert" should be developed--not to cry "wolf" until firefighters no longer react--but an effective warning system specifically tailored to each field unit's fire situation.
3. Some type of stress management counseling should be provided to DOF personnel who are involved in highly traumatic situations such as fire fatality events or "near miss" occasions.
4. Forest Area Supervisors should be provided with belt weather kits. This would give them the ability to monitor drastic changes in fire weather conditions.
5. In order to maintain a high state of fire readiness, all field units should be required to conduct periodic tactical exercises.



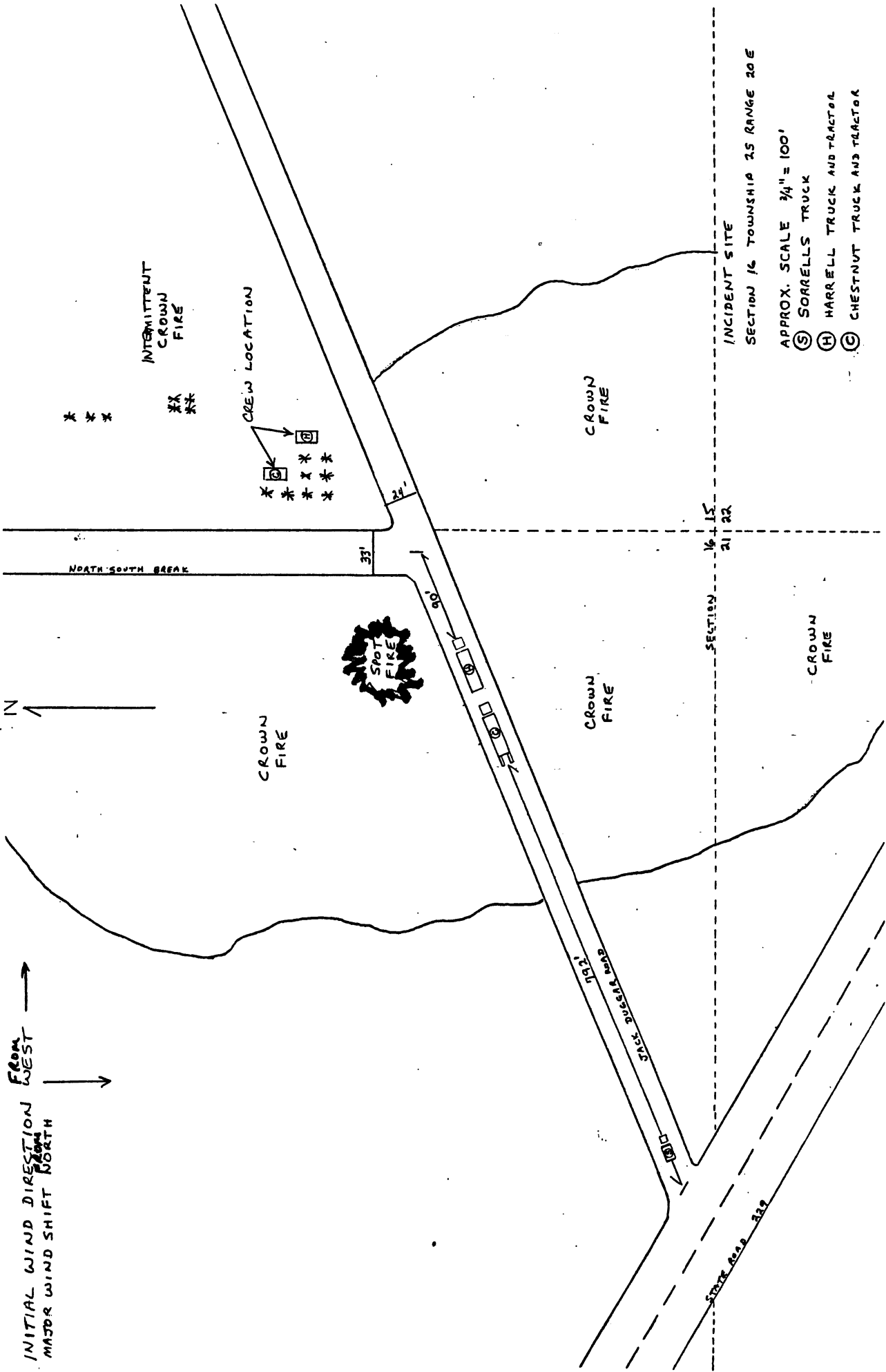
) FIRE ORIGIN.

) LOCATION OF FIRE FRONT WHEN CREWS WERE POSITIONED.

SANDERSON FIRE
3/8/08 1100

) LOCATION OF CRF 15.21 CU AC CONTAINED 3/8 1100

INITIAL WIND DIRECTION FROM WEST
 MAJOR WIND SHIFT NORTH



APPROX. SCALE 3/4" = 100'
 (S) SORRELLS TRUCK
 (H) HARRELL TRUCK AND TRACTOR
 (C) CHESTNUT TRUCK AND TRACTOR