

Cottonwood Medical Incident

Lessons Shared



On June 10th, 2020, Texas A&M Forest Service (TFS) resources returned to the Cottonwood Fire in Reeves County, Texas. While performing mop-up operations, a firefighter assigned to a Type-3 engine was injured after stepping into an ash pit.

Narrative

On the morning of June 9th, 2020, the TFS Regional Fire Coordinator for the Alpine region received a request for assistance for a fire in Reeves County. The fire was within the city limits of Balmorhea, Texas and was reported to be burning in a dry creek bed with mature cottonwood trees and large piles of dead and down fuels. The fire was estimated at 30 acres, burning moderately, and spotting. The initial TFS dispatch included two Type-2 dozers, a Type-6 engine, a Type-3 engine, a UTV with skid unit, Division Supervisor (DIVS), Regional Fire Coordinator, and a Safety Officer from Fort Stockton.

TFS resources arrived on scene at 13:02 and established unified command. During this time, the fire had spotted across a two-track road and into some piles along the creek bank. The objective was to have the two dozers work each side of the two-track road, and the engines were assigned to structure protection for a nearby barn, due to spotting potential from the debris piles.

During line construction, one of the dozers pushed over a large cottonwood tree that was actively burning. This caused friction between the landowner and resources on the fire. After line construction was completed by the dozers, the IC decided that the fire would be staffed the following morning by the Lone Star State (LSS) IA Module, the ICT4 staged in Alpine, and the Type-3 engine. It was decided that the DIVS would also return in the morning to meet with the landowner and transition command with the incoming resources.

The Day of the Incident Within an Incident (IWI)

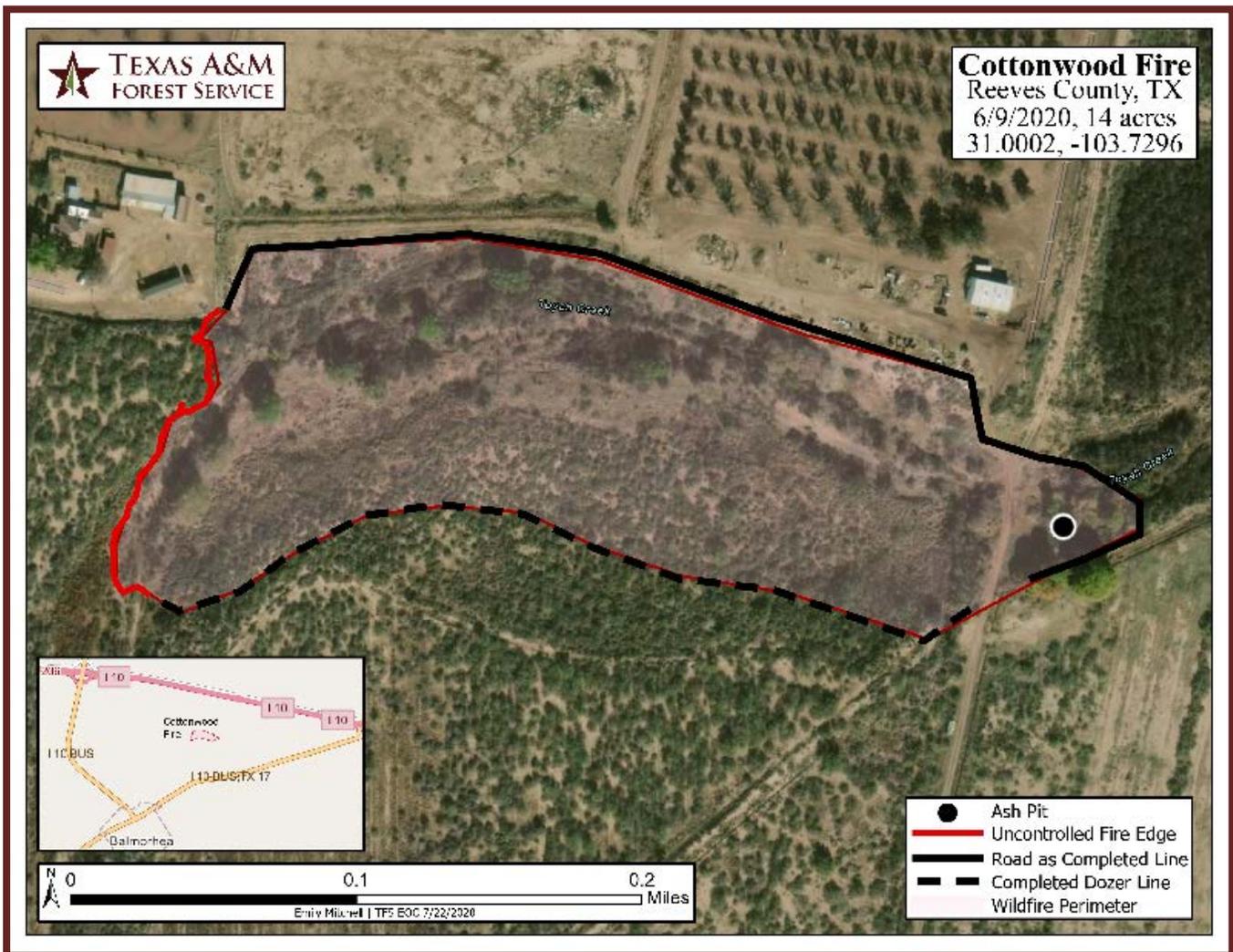
“It was just another mop-up show.” – TFS ENOP

Resources arrived at the fire the following morning, which consisted of a DIVS, ICT4, Type-3 engine, and the LSS IA Module. The LSS IA module included a qualified ICT4, two FFT1/ICT5's, one FAL2, one FAL3, and five FFT2's. Two of these individuals were also certified EMT-Basic. The module also identified an ICT5(t) that would be working as the IC of the fire, under direction of the qualified ICT4.

The Type-3 engine included a qualified ENGB, ENGB(t), ENOP, and two FFT2's, one being a certified EMT-Basic and the other working toward that certification. Due to agency COVID-19 protocols, the ENGB and one FFT2 rode in a chase truck to limit exposure.

The ICT4 and trainee then began to scout the fire with a drone to create a game plan, while the DIVS was visiting with the landowner.

After discussions between the ICT4 and ICT5(t), it was decided that, for good social distancing practices, they would brief only the single resource bosses, and then allow them to brief their resources. Briefing included weather, previous fire activity from night before, objectives, communications, and hazards (including snags, powerlines, and terrain). Ash pits are not common in that area of West Texas, so they were not identified as a hazard. The objective for the day was 100% mop-up. The crew module would work the west side of the two-track road and then south, while the Type-3 engine would work along the two-track road, mopping up heavies interior.



“I knew from seeing the area the day before, there was a potential for ash pits.” – TFS ENOP



Area of where incident happened. Note water bottle marks the spot injury occurred.

During mop-up operations, the engine crew identified a flowing irrigation ditch as a water source. The irrigation ditch had a concrete bottom and sides, and it was deep enough to draft from continuously. The ENGB(t) decided to utilize this water source and keep the Type-3 engine static, while the rest of the crew ran hose lays. The engine crew would run two hose lays to work a large pile of heavies along the creek bed. The ENGB(t) transitioned with a FFT2, who was working the pump, and asked him to assist the ENOP break up some heavies on one side of the creek bed while the ENGB and the other FFT2 worked the other side. The FFT2 assigned to the ENOP was working at the bottom of the creek bed while the ENOP worked from the top with the hose.

The crew module leader made it to the location of the ENGB(t) at the Type-3 engine to communicate progress. At that time, they both heard a short yell. Looking in the direction of the yell, they saw the ENOP getting up off the ground and hiking back

toward the engine. The FFT2 working at the bottom of the slope also heard the yell and looked up to see a large cloud of dust and steam. Realizing that something had happened, the FFT2 quickly made his way up the slope to assess the situation. Utilizing skills he had learned during his EMT training, he noticed that the ENOP had sustained burns on his calf and hands. The FFT2 began patient assessment while the ENGB(t) and Crew Module leader called for EMTs from the crew module and the engine crew. Since they were all in close proximity, there was no need for radio traffic. The EMTs immediately started cleaning and treating the burned areas of the ENOP, while the ENGB(t) started the 8-Line. The ICT5(t) was notified that there was an Incident within an Incident (IWI) and that the ENGB(t) would be IC of the IWI. At this time, the ICT4 showed up to assist and offer guidance. After a brief discussion, it was determined that the injury was a priority “green”, and it would be faster to transport the patient via agency vehicle rather than by ambulance to the closest hospital in Fort Stockton, 53 miles away. The DIVS arrived and offered transportation. After the DIVS was en-route, the ENGB(t) communicated the 8-line information to dispatch. In order to utilize the situation for a training opportunity, the ICT5(t) also communicated the 8-Line over the repeater to get hands-on experience with the process.

The ICT4 notified the proper chain of command to expedite the proper forms needed, before the patient arrived at the hospital. The TFS Regional Fire Coordinator and the Safety Officer, who had remained at the Fort Stockton office that morning, met the DIVS at the hospital, and the patient was immediately taken to the trauma ward upon arrival. From the time of the incident to the patient's arrival at the hospital was 1 hour and 10 minutes.

Crews continued to work the Cottonwood Fire, until it was controlled that evening. The resources on scene conducted an AAR before being released from the fire, and they had several discussions about the incident that day. Below are some lessons learned from the individuals involved.



Water bottle marks spot where ENOP fell in ash pit.

Lessons Learned:

- **Do you have any EMTs on scene, and do you know who they are?**

Even though EMTs were not identified during briefing, the ENGB(t) knew that the FFT2 assigned to them was certified and the other was training to be certified. She was also aware that the LSS Crew Module had EMTs on scene. TFS has recently developed a Line Medic Program, which has allowed those employees with EMT qualifications access to more advanced care items and training. Even though the certified EMTs on the Cottonwood Fire were assigned to the crew, they were also a part of this Line Medic Program that encourages them and others to continue their training. Knowing who is on scene that has proper qualifications and training can save valuable time if an IWI occurs.

“Having EMTs from the engine crew and the Crew Module sure came in handy.” – TFS ICT4

- **Do your EMTs have the proper equipment, and are the medical kits up to date?**

Both FFT2s from the engine crew, one being certified and the other working to become certified, went through the medical kit and burn kit located on the Type-3 engine prior to the incident. They identified that some of the supplies were expired. Using the proper channels, they were allowed to purchase supplies to restock the kits. Both FFT2s also had

a personal medical kit that they maintained. By thoroughly checking the NUS stocking guide on the newly assigned Type-3 engine, the crew was able to recognize items that needed to be resupplied prior to the incident.

“EMT certification should be promoted by the agency. The capabilities of the EMTs to treat me on the line reduced my risk of infection” – TFS ENOP

- **How often do you practice the 8-Line?**

The Medical Incident Report, or “8-Line”, is a standardized tool used nationally to relay information to dispatch about a medical emergency. This process streamlines getting the patient the care needed and ensures consistent and accurate communication of the situation. The agency has done a great job familiarizing our firefighters with this tool by including scenarios in annual safety refreshers and organizing training scenarios at home units, and while pre-positioned for severity. Participants noted that the initial assessment, communications, and patient care seemed to happen smoothly. However, once the official 8-Line process began, it felt slow and clunky. Even though the resources had experience with the process, it felt slower than it should. The intent of the process is to ensure that all of the critical aspects of an IWI are covered. How often do you practice the 8-Line? Do you involve dispatchers, agency administrators, or those who may not be in primary fire positions?

- **Are you utilizing trainees on incidents?**

While there were several qualified individuals on the Cottonwood Fire, the incident was mostly run by trainees, under proper supervision, operating in their respective roles. By allowing the trainees to run the incident under the guidance of qualified personnel, the incident within an incident provided a great training opportunity.