

Bowles Creek Bottom Fire Type 6 Engine Destroyed

Lessons Learned Review



Henderson, TX
August 18, 2011

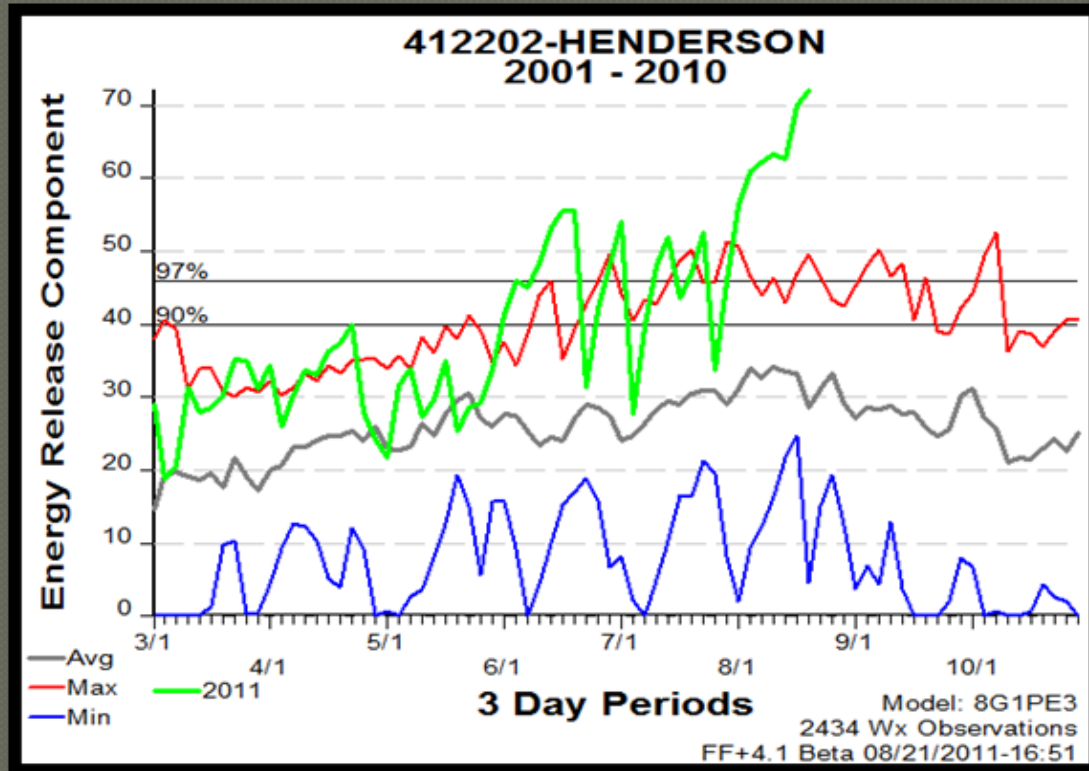
Off District Assignment



- Season started with light local Initial Attack
- One previous 14 day off district assignment
- Mobilized to Texas on August 9th

Texas has been on fire for six months...

- For Texas, the 2011 fire season began early and quickly developed into the most significant fire season on record.



The Energy Release Component (ERC) from **March – August 2011** from the Henderson RAWS.

Good Roll



- Between the August 10 and the August 18, the crew spent a total of 7 operational periods assigned to fires.
- The crew took their engine off-road a number of times, and never had any difficulties.

August 18, 2011:

Bowles Creek Bottom Fire

- Crew patrols a fire in the morning where they drive in a slough with no problems
- Two Tractor Plows and Type 6 Engine respond to the Bowles Creek Bottom Fire at 1506
- Fire is 10-15 acres upon arrival
- Tractor Plows anchor and flank, Type 6 Engine assigned to the north flank

Bowles Creek Bottom Fire
August 18, 2011
Time: 1640-1645



Safety zone



Scale: 50'

The North Flank



- Engine follows the Tractor Plow and cools down the edge
- Fire backs to the line and holds.

The Mowed Area



- The crew makes progress and arrives at an area of mowed down sawgrass
- There is a brief windshift starting multiple spots, but they are all caught

Spots!



- Engine 1 pulls forward to cool off an area for the Tractor Plow
- Another wind shift resulting in numerous spots and increase fire behavior

Bowles Creek Bottom Fire
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Type 6 Engine



Tractorplow 1

Potato patch plowline

Plowline

Engine path

Pipeline

1640 WIND SHIFT



Scale: 50'



Stuck!

- As spots grow together, the ENGB decides to reposition the engine, as he begins to back out the front end sinks and they are instantly stuck
- The Tractor Plow swamper notifies the Tractor Plow the engine is stuck while the ENGB yells to “get the chain”

The Pump Quits

- As they become focused on putting out spots around and under the engine, the Tractor Plow tries to pull them out...the engine wont budge.
- The Tractor Plow begins pushing line around the engine
- While actively knocking down fire around and under the engine, the pump quits with 3/8 tank of water left

Reevaluate priorities

- Several attempts to restart the pump are unsuccessful
- The ENGB says “use the fire extinguisher”
- The extinguisher is used to attack surface fire under the truck
- As the fire situation deteriorates, the ENGB makes the call to walk out to the Safety Zone

Lessons:



- Don't assume that because a Dozer, Tractor Plow or other piece of equipment moves across a piece of ground with no problem, your Engine will be able to do the same.

Lessons



Which one exerts more ground pressure?

Lessons

- While the Tractor Plow weighs 17,300 pounds, it exhibits a ground pressure (down force measured in pounds per square inch) of only **4.3 pounds per square inch** as compared to **34.5 pounds per square inch** for the Engine which actually weighs less at 16,200 pounds.
- For comparison, a human standing on both feet exhibits approximately 8 pounds per square inch of ground pressure.

Lessons

- ◎ If the pump dies in a stressful situation, the operator has to execute coordinated valve closures and a specific starting sequence.
- ◎ This process is generally learned from systematic, repeditive hands-on training which is usually not within the scope of a entry level firefighter's training.

Lessons

- ◉ With multiple trucks that crews switch between, set up their compartments the same.
- ◉ Know where your tow chain is stored
- ◉ Know where your flammables are stored and be mindful of their location and proximity to flames or heat sources.
- ◉ Train on low frequency events (like pulling out the chain and hooking it up quickly)

Lessons



- Have a copy of your vehicle inventory at the home unit.
- Have a copy of the vehicle maintenance records and inspection logs at the home unit.

Lessons

- On assignments away from your local area:
 - If you come upon a term or concept you are unfamiliar with, ask for clarification and ask to be shown exactly what is being described.



Active Learning

- Go outside and go over the equipment compartments on your trucks:
 - Are there differences between vehicles?
 - Where is your fire extinguisher, do you know how to use it?
- Practice start up procedures on your pump.
 - Can you quickly diagnose pump failure and properly restart under stressful conditions?
 - Example Procedures: [643U Pump Procedures](#)

Further Learning

- Google Earth representation

- [Bowles Creek Bottom Fire kmz](#)

- 5 question feedback form

- [Bowles Creek Bottom Fire LLR Feedback](#)

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