

Final Report

NON SERIOUS ACCIDENT REVIEW

PAINS BAY FIRE, MAY 6, 2011

(Alligator River NWR, Manteo, NC)

EXECUTIVE SUMMARY

At approximately 1605 on May 6, 2 Fish and Wildlife Service (FWS) firefighters were involved in a non serious accident on Alligator River National Wildlife Refuge in Dare County NC. The 2 firefighters were forced to drive through the head of the Pains Bay Wildfire resulting in a service vehicle sustaining significant damage when materials in the bed ignited. The firefighters were not injured.

NARRATIVE

On May 6, 2011, at approximately 1525, 2 FWS firefighters (2-FF's) traveled south on US-264 in a dual tired pick-up truck to retrieve a Marsh Master and bring it north to the next operational assignment. The road had been closed to the public for firefighter safety, decreased visibility and tractor plows being unloaded. The fire was not immediately threatening the road on the west side; however, spot fires between the road and canal had ignited numerous guard rail posts. The 2-FF's notified a FWS engine crew about the guard rails and proceeded to the Marsh Master. The FWS engine crew began extinguishing the guard rail posts and soon noticed a wind shift and change in fire behavior, at which time they relocated to a safe area to the north. At approximately 1605, the 2-FF's were heading north on US-264 with the pick-up truck and Marsh Master in tow when the FWS engine crew attempted to stop the 2-FF's via radio communication with no success. When radio contact was made the 2-FF's were too far down the road to stop. Heavy smoke, narrow shoulders, and guard rails made it impossible to turn around with the equipment trailer, and the safest decision was to continue traveling north. The fire, responding to a wind shift and influences from the active fire on the east side of the road, began leaning over the road. The 2-FF's pushed through and cleared the fire although various materials in the bed of the truck, including drip torches and torch fuel, caught fire. The vehicle fires were extinguished once it was safe to stop. No injuries were reported. There was extensive paint and plastic damage to the truck. The plexi glass window in the Marsh Master was damaged.

INVESTIGATION PROCESS

The narrative was based on the recounts from the individuals involved and witness statements regarding the incident. Human and environmental factors were considered and both played a role in the incident. Material factors were considered but were not found to contribute.

FINDINGS

1. Due to heavy radio traffic on the one tactical frequency assigned, the 2 FF's changed frequencies on their mobile radio to communicate with the local Dispatch office and had failed to switch back to the incident frequencies.
2. Handheld radios were left in the pick-up truck while the FF's loaded and secured the Marsh Master so the FF's were unable to hear any radio traffic concerning the changing conditions.

3. Drip torches in the back of the truck had not been secured and spilled fuel when they turned over.
4. Miscellaneous debris had not been cleaned from the truck bed.
5. Fire behavior at the time of the incident was the most extreme observed up to that time. FF's situational awareness was compromised due to lack of communication.
6. FF's used sound judgment by pushing through the smoke and not trying to turn the vehicle around.
7. The IC was notified when the FF's made it to the staging area. The IC immediately broadcast the message over the radio and alerted all firefighters on the incident to the danger of travelling on the road and that the extreme fire behavior being observed. Incident personnel were told to not travel on the road until they had established lookouts and communications with someone who can see that they have safe travelling conditions.
8. When the IC found that communications had been a key issue in the incident, a second broadcast was made instructing all firefighters to continuously monitor the assigned tactical frequency.
9. Incident was used as a "Lessons Learned" opportunity. One of the FF's recounted the events at the following morning's briefing as the safety message. He described what had happened, the fire behavior experienced and why they had continued going north on US-264.

DISCUSSION

There are elements within the findings that show human and environmental factors contributed to the incident. Human factors – not in radio contact, material not removed from truck bed. Environmental Factors - extreme fire behavior and low visibility.

RECOMMENDATIONS

1. During initial briefings, ensure that incident personnel are fully aware of the potential fire behavior.
2. If the fire exhibits a significant change in fire behavior, incident personnel should communicate this up the chain of command so that it can be broadcasted to all firefighters near the fireline.
3. Assign additional tactical frequencies when communications become difficult due to radio traffic.
4. Drip torches, fuel cans, and other flammables must be secured when transported in vehicles.
5. Remove any flammable debris from truck beds and equipment when operating near the fireline.
6. Follow the communications plan to ensure adequate situational awareness and Fire Order #2 and #7 are followed (Fire Order #2 – Know what your fire is doing at all times, Fire Order #7 - Maintain prompt communications with your forces, your supervisor, and adjoining forces.)
7. When operating vehicles with minimal maneuverability (i.e., towing trailers or vehicles >15" long), utilize a lead vehicle to scout road conditions if there is significant potential for hazardous conditions.

CONCLUSION AND OBSERVATIONS

When the IC was advised of the incident and contributing factors, corrective actions were promptly taken. The incident was allowed to become a "Lessons Learned" opportunity and shared the next day at briefing with all incident resources.

Prepared by; Vince Carver - Regional Fire Ecologist and Kelley Van Druten – Region 4 District 1 (R4D1) Wildland Urban Interface Specialist on May 16, 2011. Reviewed by Mike Bryant - Project Leader of NC Coastal Plain Refuges Complex and Tom Crews – DFMO R4D1.