Fuels and Fire Behavior Advisory North, Central and Northeast Texas July 10th 2018

Subject: Below normal rainfall in late May and June across portions of the Hill Country, eastern Rolling Plains, Cross Timbers, North Texas and Northeast Texas combined with extended periods of above normal temperatures have increased Fuel Dryness to levels that will support significant fire activity in high risk fuel types when fire weather thresholds are present.

Discussion: Moisture levels in both live and dead fuels continue to trend down, even with periodic episodes of thunderstorm pattern rainfall. 1000 hour fuel moistures in the area of concern are generally below the 25th percentile with localized areas below the 10th percentile. Heavy dead fuels are holding heat through multiple burn periods requiring extensive mop up and patrol commitments. Live fuel canopy moistures in Juniper, Pine, and Live Oak are trending below normal. Single tree and group torching in these species with only moderate surface fire intensities is common. Active crown fire has been observed in high risk Juniper brush fuel types when fire weather thresholds and fuel dryness are aligned. Short range spotting in Juniper from group tree and active crown fire has increased difficulty of control to a high level. ERC in the area of concern is generally above the 75th percentile and there are an increasing number of stations/areas showing ERC at or above the critical 90th percentile. Fire weather thresholds include temperature near 95, RH 25-30%, and **windspeed only in the 8-12 mph range.**

Concerns to Firefighters:

- Summer season fires occurring in brush and timber fuels will be highly resistant to control due to high fire intensity in surface fuels and short range spotting across control lines from single and group tree torching.
- Active crown fire can occur in high risk closed canopy Juniper brush producing flame lengths of 60-80 feet with windspeed of only 8-12 mph.
- Low fuel moistures in heavy dead fuels will hold heat through multiple burn periods. Heat can also hibernate in the heavy dead fuels and stumps through light rain events.

Area of Concern:





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