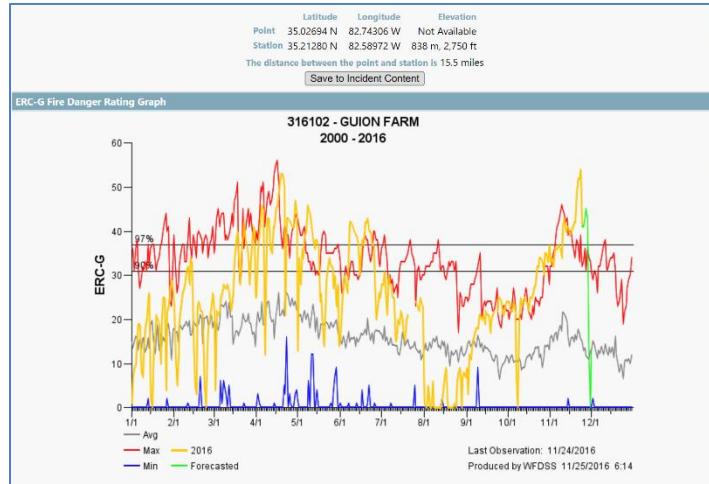


Pinnacle Mountain Fire

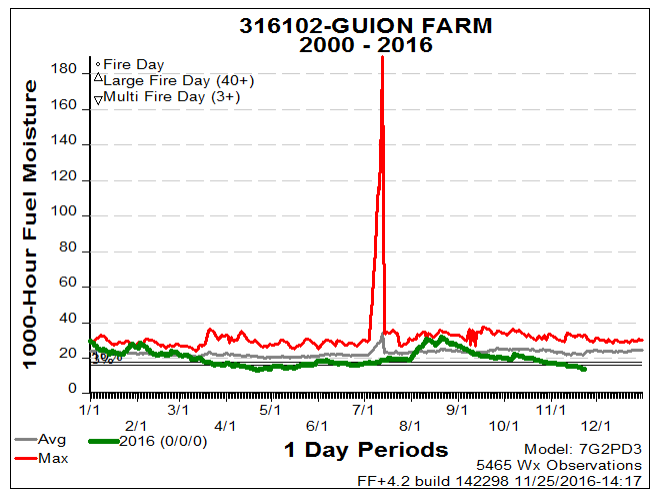
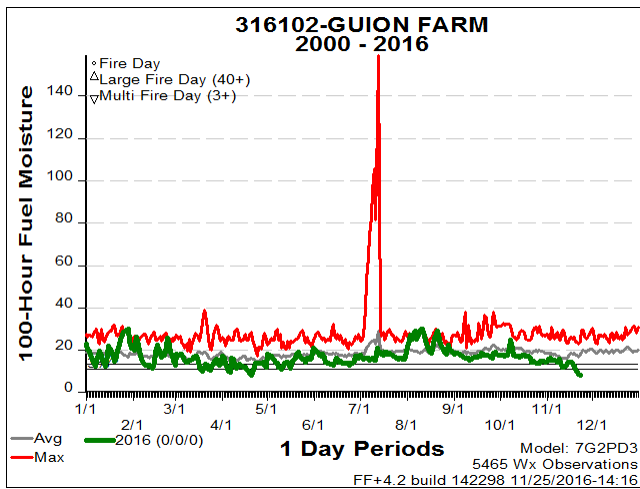
November 25, 2016

The Pinnacle Mountain fire was discovered on November 9, 2016. To date it has burned over 8,905 acres of South Carolina state and private lands; the fire has also impacted a small percentage of North Carolina state lands. Critically dry fuels with ERC-G values rising well above the 97th percentile will continue to support significant fire development in timber and brush fuels when elevated or stronger fire weather is present (Graph 1).



Graph 1. Guidon Farm RAWS. ERC-G current (yellow) and 6-day predicted (green) values, November 25, 2016.

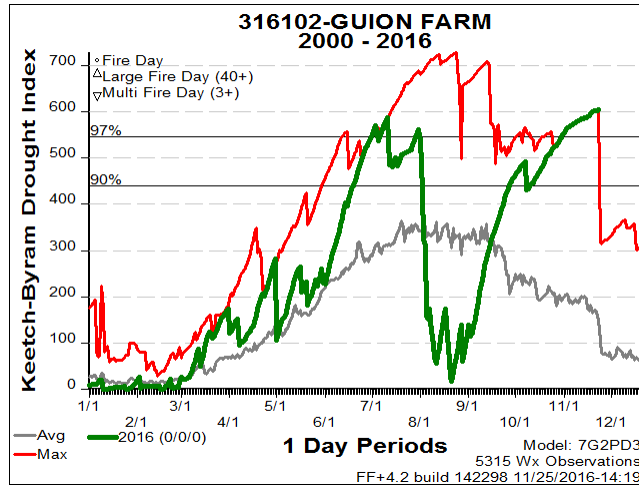
All dryness and drought observations agree with the expanding and intensifying dryness in the area of concern. 100- and 1000-hour FM values are below the 3rd percentile (Graphs 2a, 2b) and KBDI values are above the 97th percentile throughout the area as well (Graph 3). Rainfall deficits less than 25% of normal for both 30 and 60 day periods are widespread and expanding. The most recent drought monitor continues to expand all levels of drought intensities within the area of concern. Moisture is predicted for much of the area starting in late November and early December but with the rainfall deficits, ERC values could quickly recover to above the 90th percentile.



Graphs 2a and 2b. Guidon Farm RAWS. 100-hour and 1000-hour fuel moisture values trending below the 3rd percentile, November 25, 2016.

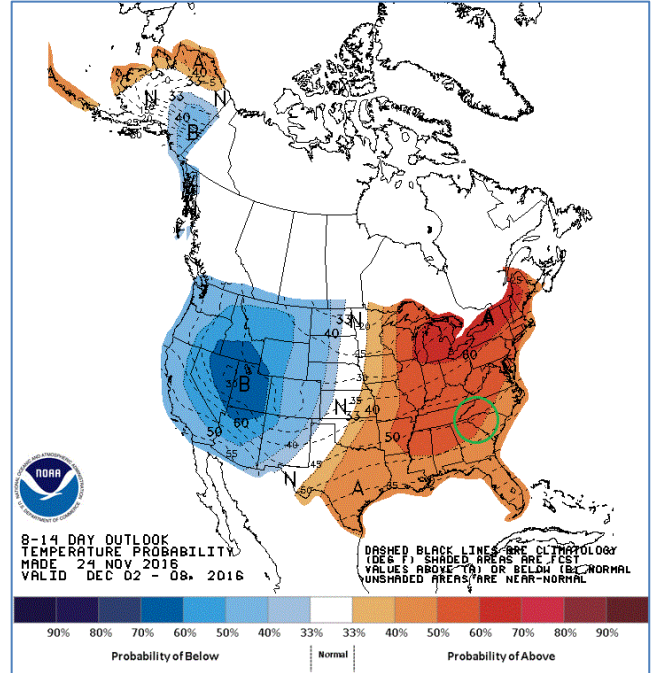
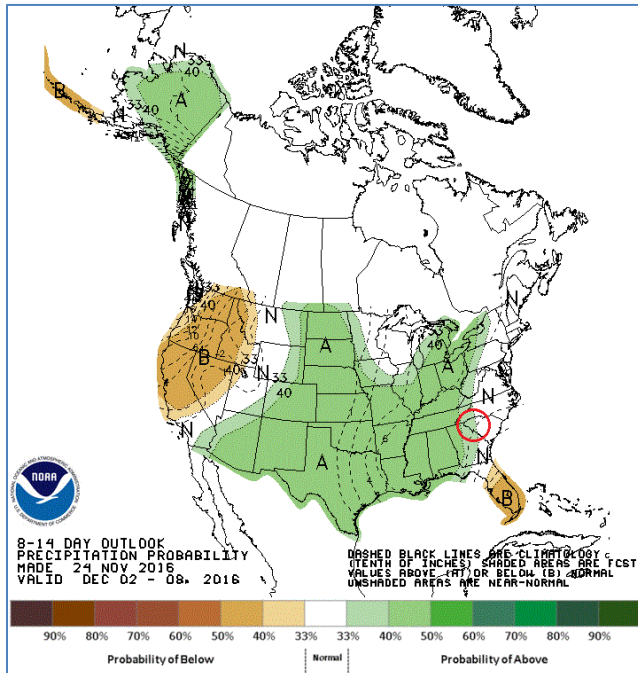
Pinnacle Mountain Fire

November 25, 2016



Graph 3. Guidon Farm RAWS. KBDI values trending well above the 97th percentile, November 25, 2016.

Normal climatology for November and December would trend cool and moist. The current trend is warm and dry. Currently the area of concern is experiencing climatology that is trending opposite of normal climatology. This divergence can be seen in the seasonal ERC graphs. Early to mid-November saw numerous records broken for daily max temperature. The National Weather Service 8-14-day outlook (beginning November 24, 2016) for precipitation and temperature does show an above normal probability for precipitation but also a well above normal probability for warmer temperatures. This may quickly reduce any benefits from precipitation received over the fire area (Maps 1a, 1b).



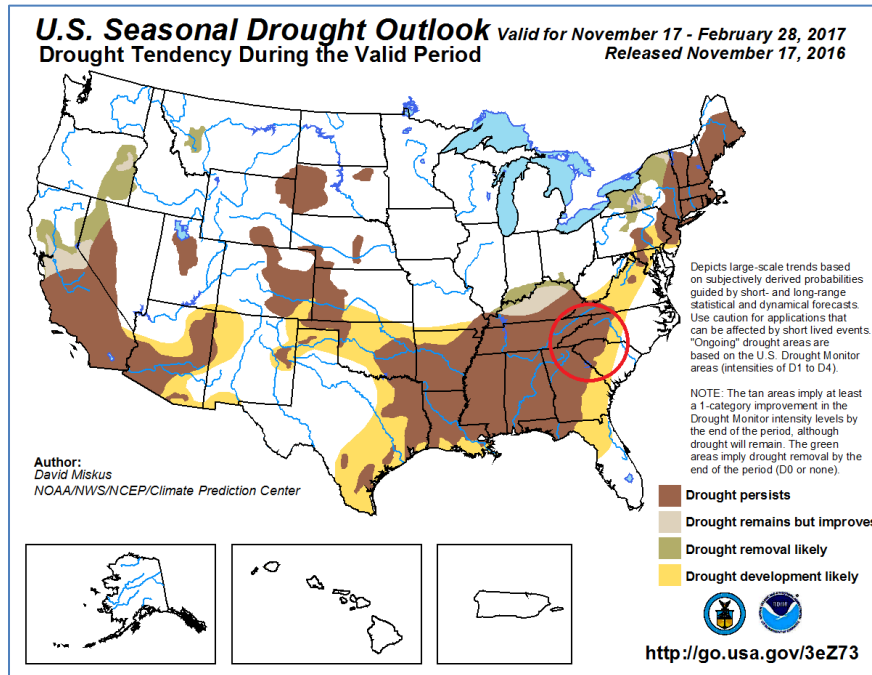
Maps 1a and 1b. Eight- to 14-day precipitation and temperature probabilities, valid through December 2, 2016.

The seasonal drought outlook for western South Carolina shows extreme and exceptional drought conditions persisting across the area (Map 2). The southern third of the lower 48 States is predicted to tilt

Pinnacle Mountain Fire

November 25, 2016

toward above-normal temperatures and sub-median precipitation, especially during the winter, favoring drought persistence or intensification. Combined with recent warmth and near-record dryness, areas of predicted drought development included the remaining non-drought areas of the Gulf Coast, extending westward into central Texas and the south-central Plains, and eastward into the Atlantic Piedmont. The only exception to the widespread dryness in the Southeast is improvement in the northern edge of the drought in the lower Ohio Valley (southern Indiana and northern Kentucky) where somewhat above-median winter precipitation is forecast.



Map 2. U.S. Drought Monitor showing extreme and exceptional drought impacts in western South Carolina.

Pinnacle Mountain Fire

November 25, 2016

National Weather Service forecast information for November 25-27, 2016 shows temperature and relative humidity (RH) values similar to what has been experienced over the past few days (Chart 1a). Chart 1b shows an increase in the potential for precipitation over the fire area beginning late Monday (November 27th) and continuing into early Tuesday, November 29th.

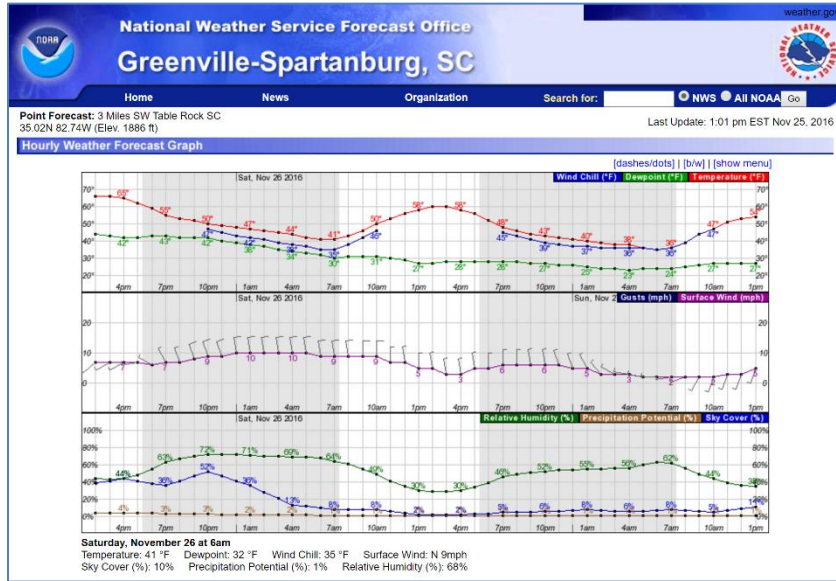


Chart 1a. National Weather Service Point Forecast for Table Rock, SC beginning at 1400 on November 25, 2016 through 1300 on November 27, 2016.

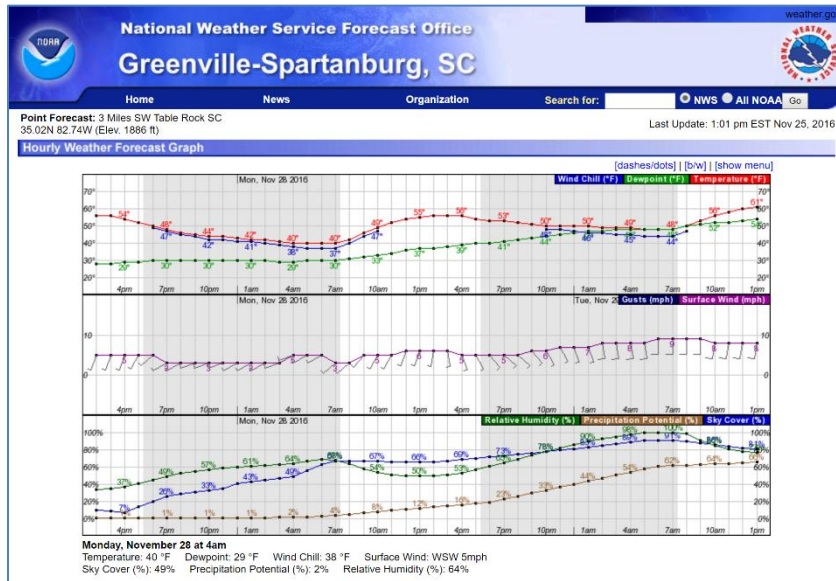


Chart 1b. National Weather Service Point Forecast for Table Rock, SC beginning at 1400 on November 27, 2016 through 1300 on November 29, 2016.

As daytime RH values increase over the next few days, the potential for effective burnout operations may decrease beginning on Monday November 28th. However, cooler temperatures and higher RH levels should benefit firefighters during mop up operations.

Pinnacle Mountain Fire

November 25, 2016

The lack of precipitation and delayed leaf-off (leaf drop) has created unusual fire conditions for the region. Falling leaves quickly cover control features (i.e. dozer lines, hand lines) creating opportunities for fire to burn across containment lines. Leaf litter not compacted by precipitation events remain "light and fluffy" making this fuel bed very susceptible to burning. Although rates of spread have not been what might be considered excessive, fire behavior has been consistently described as running and flanking surface fire. Continued leaf drop may cause an increase in rates of spread from what has been observed over the past few weeks. Extended burn periods have also created unique conditions; fires have frequently burned freely throughout the night due to poor RH recoveries. Intermittent periods with high nighttime RH recoveries (90-100%) were quickly reversed with dry atmospheric conditions and periodic wind events. Anticipated precipitation during the next few days may temporarily reduce fire activity. However, if precipitation is not widespread and consistent the mitigating effects may be short-lived. Note the quick rise in ERC values following precipitation events in Graph 1.

If extended drying conditions follow the anticipated precipitation event, fire conditions have a high probability of returning and control efforts may again become a challenge. If dry conditions return and persist, fire managers can expect a return to complete consumption of fuels and steady rates of spread. Fire intensities will return to higher than normal which will likely preclude direct attack tactics. Continue to plan for extended mop-up operations.