

## FIRE BEHAVIOR OUTLOOK

### Southern Area Fire Behavior Outlook

<b>FORECAST VALID FOR: July 16, 2011</b>	<b>DATE/TIME ISSUED: July 16/0730 Hrs</b>
<b>NEXT UPDATE: July 17, 2011</b>	<b>SIGNED: Ben Rowland / William Glesener, Fuels</b>

\*This is a general fire behavior outlook for the Southern Geographic Area. It is intended to provide wildland fire managers with an overall view of fire behavior potential and to assist wildland firefighter with making sound decisions and maintaining situational awareness based on current and expected fire behavior. This outlook is not intended to replace onsite observations or spot weather forecasts issued by the National Weather Service.

Some products provided in the outlook often are not updated prior to posting. Refer to updated information on the Southern Area Coordination Center Website as it becomes available:  
<http://gacc.nifc.gov/sacc/index.htm>

#### **Fire Weather Summary:**

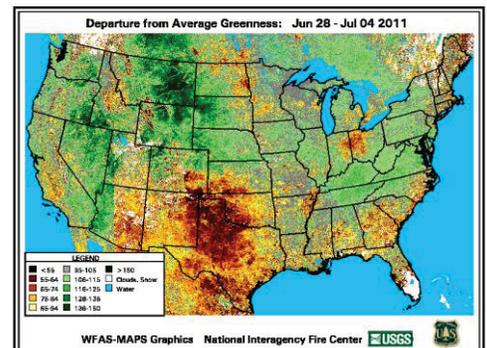
##### **\*\*\*Red Flag Warnings/Fire Weather Watches and Advisories**

There are no Red Flag Warnings/Fire Weather Watches and Advisories currently in effect in the Southern Area.

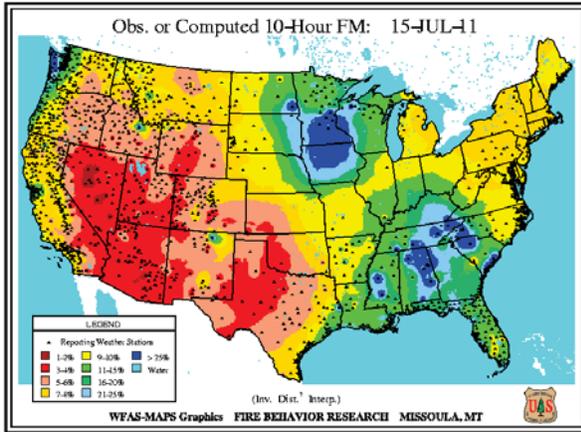
- For complete fire weather information and specific detailed forecasts see:  
<http://www.weather.gov>
- Refer to the MesoWest Regional Surface Maps to access weather observations.  
<http://mesowest.utah.edu/index.html>
- For updated fire danger and fuel moisture values link to:  
<http://wfas.net/>

#### **Fuels Conditions: State of the Fuels will be updated weekly or as the conditions warrant.**

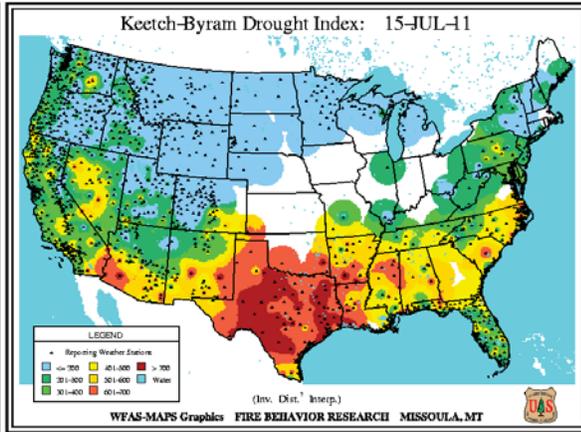
Live fuel moisture values are averaging less than 75% in the west to 125% in the NE portion of the Region. Brush and Timber fuel types are supporting and contributing to fire spread. KBDI values are continuing to moderate from extreme levels into the upper 500's and 600's at many sites and are becoming more wide spread from the gulf coast region northward. West Texas is seeing KBDI values in the lower 700's. Greenness levels are showing a departure of ~55-75% in West and Central Texas indicating a continued decline in Live Fuel Moisture content. The Fine Dead Fuel Moisture in the upper Appalachian Mountains and Coastal Plains regions are increasing as more precipitation has fallen in that area; however, they should be monitored due to gradual drying bringing moisture levels down seasonally.



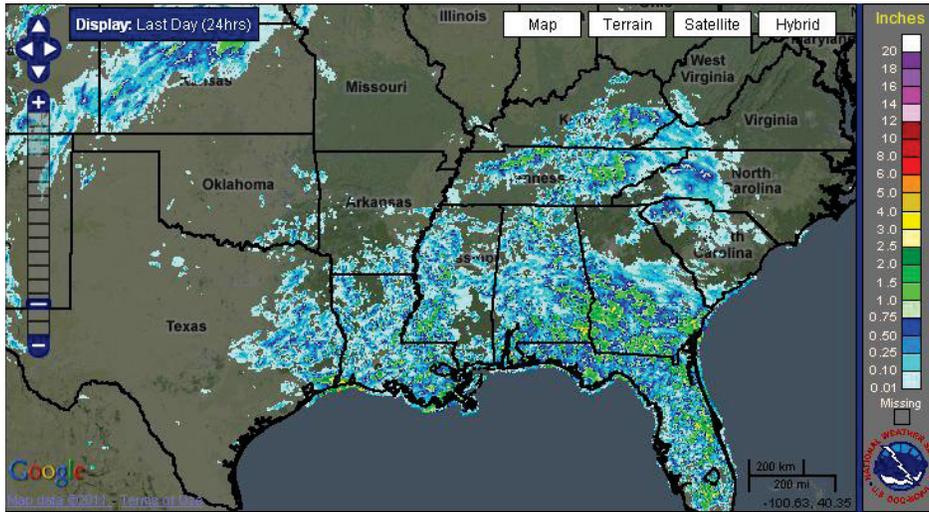
WFAS – 10 Hour Fuel Moisture



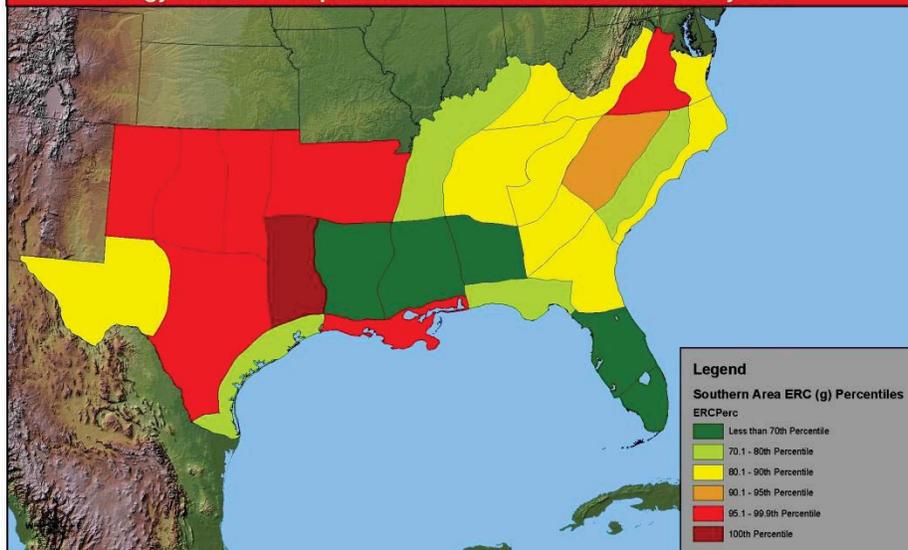
WFAS – KBDI Values



Southern Area 2 – 24 hour precip. ending July 16, 2011 @ 0730



Energy Release Component Values for Fuel Model G 14 July 2011



Energy Release Components for fuel model G, expressed as a percentile of their historical value. High values indicate areas where current ERC values are meeting or exceeding historical values for that area.

## Fire Behavior Outlook:

### **Great Plains Trans-Pecos and Central Lowlands of Texas and Oklahoma**

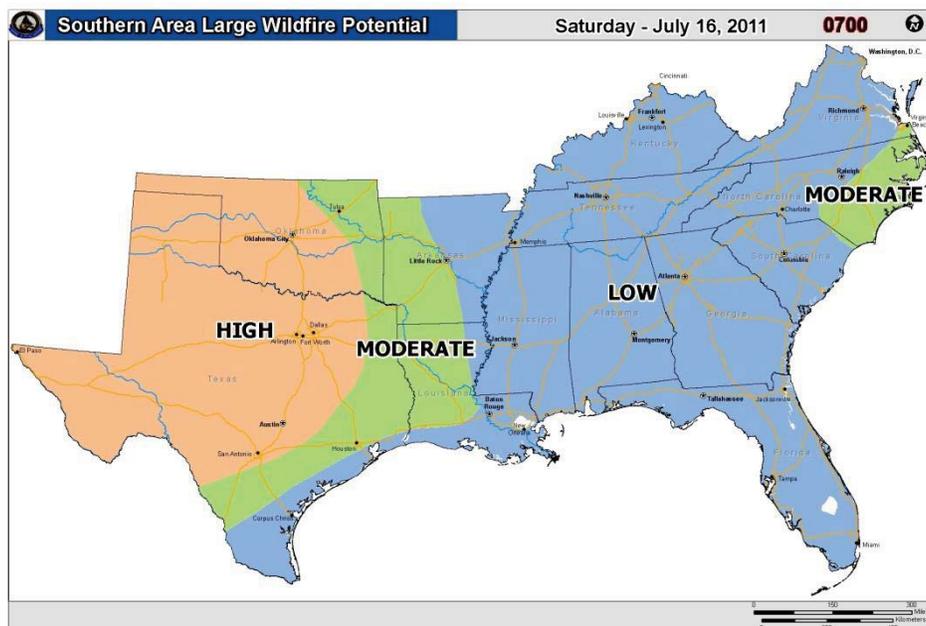
**HIGH** fire behavior expected as hot dry weather coupled with windy conditions forecasted will persist and elevate fire behavior potential. Expect any new start to grow rapidly especially in fine dead fuels. Resistance to control will be very high today, indirect attack and flanking attack will be safest option for perimeter control. Frontal assault in all fuel types could be compromised especially with wind/slope alignment.

### **Coastal Plain of Texas, North East Oklahoma, West Arkansas, West Louisiana, & North Carolina.**

**Moderate** fire behavior can be expected today with any new start. Dry fuels & the threat of lightning and will be the ingredients to produce erratic fire behavior. Precipitation has helped moderate fuel moistures and any starts should be handled quickly to avoid future problems. ERC's above the 95<sup>th</sup> percentile, higher RH's and continued moisture are expected. Continue to monitor thunderstorm development in the afternoon.

### **Eastern portion of the Region including S. Carolina and Georgia**

**Low** fire behavior expected as portions of this area received modest precipitation and have continuing higher RH's. Low to Moderate resistance to control can be expected for initial attack. Areas that did not receive significant precipitation will pose a moderate potential for fire behavior, ongoing incidents and new starts on steeper slopes could see short duration runs in the afternoon. Fires having peat and ground fuels burning need to be continually monitored. Continue to monitor thunderstorm development in the afternoon.



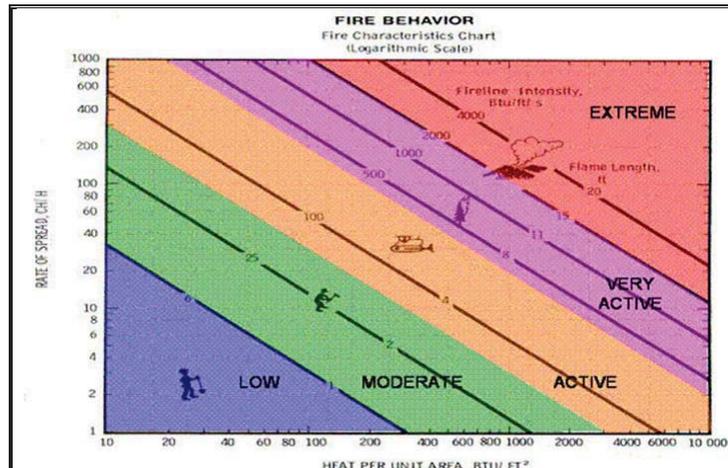
This product is intended to depict **GENERAL** fire behavior potential in the Southern Area. Information summarized from various sources applicable to the geographic area scale and is not intended to provide site specific fire behavior conditions. Individual fire behavior forecasts using fuels, weather and topography must be used for specific incidents.

**FIRE BEHAVIOR INTERPRETATION:**

Visual assessment of active flame length and evaluation of potential effectiveness of various resources and capabilities. The implications of observed or expected fire behavior are critical components of suppression strategies and tactics, in particular terms of determining resistance to control, effectiveness and safety of various resources.

FIRE BEHAVIOR ADJECTIVE RATING	FLAME LENGTH (FEET)	INTERPRETATION FOR FIRE MANAGEMENT
LOW	0-4	Generally attack at the head or flanks are successful, handline should hold fire with very little resistant to control.
MODERATE	4-8	Fire is too intense for direct attack at the head. Handline cannot be relied upon, additional support from engine, dozer, tractor plow or air support is needed.
HIGH	8-11	Fire can present control problems; torching, crowning and spotting can be expected. Control efforts at head of fire are often ineffective.
VERY HIGH	11+	Crown runs, intense surface burning and spotting are common; control efforts at head are ineffective.
EXTREME		Although uncommon, can best be described as erratic fire behavior that goes beyond human methods of control or prediction. Rare events such as well developed and sustained fire whirls, independent crowning and plume dominated fire growth.

The Hauling Chart is an excellent tool for measuring safety and potential effectiveness of various fireline resources, it infers the relative intensity of the fire behavior to trigger points and evaluates type and capability for resource needs. Additionally, the Hauling Chart is also a useful tool to help firefighters get a perspective on the relative difficulty of constructing and holding a control line as affected by resistance to line construction by fire behavior.



**Outlook:**

Persistent hot and dry weather continues in Central Texas and Southern Oklahoma. As high pressure moves back and forth, West Texas will see scattered thunderstorms that may produce lightning that could start new ignitions. Fuels continue to be stressed by prolonged drying; fuels that are typically not available to carry fire are providing fuel for fire spread. Any new ignition has the potential to provide a high resistance to control. Areas in the northern portion and south coastal areas of the region will receive enough precipitation to moderate fire behavior potential over the next few days. Several new starts are expected, some fires may exhibit active fire behavior that may extend well into the burn period.

Stay updated by viewing the Southern area 7 day Significant Fire Potential product:

[http://gacc.nifc.gov/sacc/predictive/outlooks/Fire\\_Potential.htm](http://gacc.nifc.gov/sacc/predictive/outlooks/Fire_Potential.htm)

Longer range outlooks reference the Climate Prediction Center link:

<http://www.cpc.ncep.noaa.gov/index.php>