

**ROCKINGHAM
DISTRICT 3
FUEL MODEL C
LONGLEAF WIREGRASS**

NWS Forecasting Offices
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RAWS/ASOS Stations
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**FIRE DANGER
POCKET CARD
(STANDARD)**



MAXIMUM: Highest ERC by day for 2000-2011.

AVERAGE: Shows mean daily ERC value thru the year.

98th PERCENTILE: Only 2% of the days from 2000- 2011 had an ERC above 19.

76th PERCENTILE: Represents an ERC level of 13 where large/multiple fire occurrences increase.

Local Thresholds-- Watch out !

Combinations of any of these 3 factors can greatly increase fire behavior.

Wind speed over 6 mi/h, **RH** less than 30%, **Temperature** over 68

ENERGY RELEASE COMPONENT			
Fuel Model C Longleaf Wiregrass	Average Seasonal Value	Average Highest Value	Highest Value Observed
January	11	19	21
February	12	20	23
March	12	20	22
April	13	21	23
May	8	16	20
June	4	7	12
July	5	8	13
August	5	8	12
September	6	9	17
October	4	8	13
November	7	16	19
December	10	18	20

Remember what Fire Danger tells you:

ERC gives general seasonal trends calculated from precipitation, temperature, and RH. Wind speed is not part of the **ERC** calculation.

Watch local conditions and variations across the landscape--Fuel, Weather, Topography. Listen to weather forecasts--especially WIND.

Energy Release Component (ERC) is a number relating to the available energy released from forest fuels (BTU / ft²) at the head of a fire's flaming front. **ERC** is a composite of all live & dead fuel moistures. It is a very good reflection of drought conditions. It is a "build up" type index. Given a fire start in a fuel with a high **ERC**, fire containment can be expected to be difficult. **ERC** is very valuable in assessing the depth of a burn, consumption of the various fuel sizes, residual burning, and mop-up requirements.

Past Experience:

▲ **45 Fires:** 02/19/11 D3 District Wide - 131ac - ERC 22

▲ **MM Easter Fire:** 04/4/2010 Stanly Co.- 100ac - ERC 17

▲ **Pleasant Hill Rd. Fire:** 09/14/2010 Anson Co.- 30ac - ERC 17

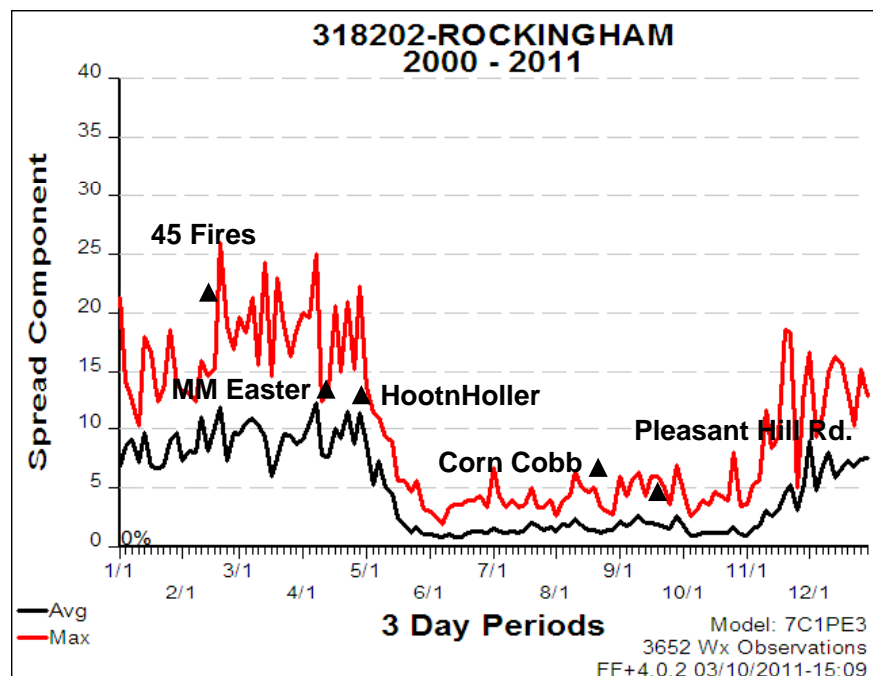
▲ **Corn Cobb Fire:** 09/21/2007 Scotland Co. - 180ac – ERC 12

▲ **HootnHoller Fire:** 5/1/2007 Richmond Co. - 161ac – ERC 20



MARCH, 2011

This card is based on 11 years of data



Spread Component (SC) - the rate of spread expressed in feet per minute or chains per hour at the head of a fire. **SC** aids in assessing readiness plans, tanker use, ground tactics, and pre-positioning resources. The **SC** value usually exceeds the fire's true ROS. The fire's true ROS can be determined by observing actual fire behavior. In relatively open woods **SC** values exceeding **40** are critical. At this value the fire is moving too rapidly for effective direct attack with a "tractor plow".

Ignition Component (IC) - the probability a firebrand will cause an "actionable" fire, and requires suppression action. **IC** is more than just a probability of a fire starting. It has to have the potential to spread. IC can be an aid in assessing spotting potential. An **IC** value of **25** is a critical threshold value. Values at this level are critical especially during March, April & May as firebrands initiate spot fires.

Burning Index (BI) - relates to the contribution of fire's behavior, in containing the fire. The difficulty of containment is directly proportional to the fireline intensity. **BI** is derived from the combination of the SC & ERC. **BI** of **4** indicates a threshold for direct attack with hand tools. **BI** of **8** indicates a threshold for direct attack with a tractor plow. **BI** of **6** can indicate crowning and also an increase in spotting. The doubling of the **BI**, 20 to 40 can increase flame length from 2 to 4 ft. yet, increases fireline intensity 5 times.

