

#### **Critical Fire Weather Thresholds:**

- Relative Humidity: 30% or less
- 20' Wind speed: 15 mph or greater
- Temperature: 90° or greater

### Critical Dead Fuel Thresholds (10<sup>th</sup> %)

- 10-Hr : 8
- 100-Hr: 15
- 1000-Hr: 17

## Critical Live Fuel Moisture Thresholds (10<sup>th</sup> %):

- Loblolly Pine : 121
- Red Oak: 95
- Yaupon: 102

# Critical NFDRS Indices (90<sup>th</sup> %):

- Energy Release Component : 36
- Burning Index: 38

Northeast Texas TFS Fires and Acres Burned May-October

	May	Jun	Jul	Aug	Sep	Oct
Fires	15	20	15	33	24	25
Acres	100	120	75	300	200	150

### Remember what Fire Danger tells you:

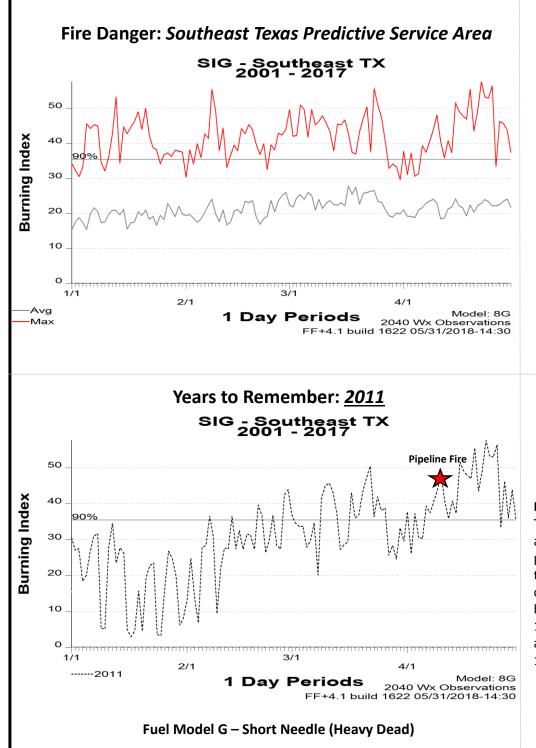
- Energy Release Component gives seasonal trends calculated from 2 PM temperature, humidity, 24-hour Min and Max Temperature and Relative Humidity, and Precipitation.
- Wind is NOT part of the ERC calculation.
- Watch local conditions and variations across the landscape –Fuels, Weather and Topography.
- ✓ Stay informed of local fire weather forecasts, especially **WIND.**

### Past Experience:

The Powerline Fire occurred on 6/18/11 in Jasper County. The weather pattern was dominant high pressure with consecutive accelerated drying days of near 100 degrees. Consecutive days of accelerated drying and pine plantation fuels are key. The fires grew in pine plantation fuels which included active crown fire and spotting. Weather observations from the Kirbyville RAWS included South-southwest winds 10-12 mph with gusts to 25, minimum RH 35% and maximum temperature of 101 degrees. Live fuel moisture measured from pine in nearby Newton County was 130%. The 10<sup>th</sup> percentile for pine in Southeast Texas is 121%.

Responsible Agency: Mike Dunivan, Texas A&M Forest Service May 2018





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### Critical Live Fuel Moisture Thresholds (10<sup>th</sup> %):

- Loblolly Pine : 121
- Live Oak: 95
- Yaupon: 86

# Critical NFDRS Indices (90<sup>th</sup> %):

- Energy Release Component : 36
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Southeast Texas Normal Fires and Acres Burned January-April

	Jan	Feb	Mar	Apr
Fires	21	22	39	20
Acres	260	375	550	200

### Remember what Fire Danger tells you:

- ✓ Burning Index gives day-to-day fluctuations calculated at 2 PM temperature, humidity, and wind.
- Wind is part of the BI calculation.
- Watch local conditions and variations across the landscape –Fuels, Weather, and Topography.
- ✓ Stay informed of local fire weather forecasts, especially WIND.

### Past Experience:

The Pipeline Road Fire (4/16/2011) in Hardin Co., burned 7,101 acres. Arson fires are common in the SETX PSA. This fire was caused by an oil well flair. Fuels: primarily young dense pine plantation, ladder fuels (needle drape) and yaupon in the understory. The fire was extremely difficult to control due to weather, fuel conditions, very remote large continuous pine plantation without many fuel breaks. Indirect tactics and large burnouts were used to contain the fire. A min. RH 10%, max. temp 84 degrees, Northerly winds 9 mph with gusts to 24 was observed at the Southern Rough RAWS. LFM measured from pine in Tyler Co., was 113% & 112% in yaupon. The 10<sup>th</sup> percentile for pine is 121% & 86% in yaupon in SETX.

