

Northeast Texas PSA Critical Thresholds and Fire Data

April 2018

Fire Weather Stations:

RAWS – Clarksville, Texarkana, Linden, Gilmer, Caddo Lake, Henderson

ASOS – Tyler Pounds Field

Data Years: 2001-2017

Critical Fire Weather Thresholds:

Relative Humidity 30% or less
20' Windspeed 15 mph or greater
Temperature 90° or greater



Fuels: Pine Plantation, Yaupon Brush, Mixed Timber Litter, Slash



Peak Fire Seasons:

July through October with summer drying

January through March with cured grasses and wind events

Normal TFS Wildfire Response and Acres Burned by Month

Based on 2005-2017 Fire Occurrence Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<i>Fires</i>	36	36	45	20	12	8	40	62	45	38	20	20	383
<i>Acres</i>	350	565	300	130	50	100	250	250	400	150	80	150	2,775

Dead Fuel Moisture Thresholds

	Percentiles				
	3	4-10	11-25	26-50	51-100
1000-hr	14	15	16-17	18-19	20
100-hr	12	13	14-15	16	17
10-hr	6	7	8	9-10	11

NFDRS Thresholds (Fuel Model G)

	Percentiles				
	97	90-96	75-89	50-74	0-49
ERC	53	44-52	36-43	28-35	0-27
BI	48	41-47	33-40	25-32	0-24
KBDI	737	675-736	601-674	474-600	0-473

Live Fuel Moisture

	Percentiles				
	3	4-10	11-25	26-50	51-100
Loblolly Pine	111	112-120	121-130	131-144	145+
Red Oak	79	80-85	86-90	91-99	100+
Juniper	86	87-91	92-95	96-103	104+
Yaupon	96	97-102	103-108	109-118	119+

Significant Fire Potential Matrix

The Significant Fire Potential (SFP) Matrix is a **daily** situational awareness and decision making tool at the local level based on a fire weather station's observed and forecast ERC and forecast BI. A significant fire is defined as a wildland fire that will require the mobilization of additional resources from outside the area of the fires origin (Extended attack, ICT3+).

Linden RAWS 2017		Local Preparedness Level Energy Release Component G (ERC)			
		1 0-32	2 33-45	3 46-56	4 57+
Dispatch Level Burning Index G (BI)	1 0-23	Low	Low To Moderate	Moderate To Low	Moderate
	2 24-35	Low To Moderate	Moderate To Low	Moderate	Moderate To High
	3 36-42	Moderate To Low	Moderate	High	High
	4 43+	Moderate	Moderate To High	High	Very High ★

To Use: Find nearest [Fire Weather Station](#) to open Matrix. Open [SFP Indices](#) page for forecast ERC and BI of chosen fire weather station. Plot ERC and BI for intersection and SFP forecast.

*Example: 10/17/15 Linden Forecast
 ERC: 62 BI: 57
 SFP Forecast: Very High
 Stateline Fire, 195 Acres in Cass County*