FIRE DANGER -- Southeast Texas PSA

Maximum, Average, and 90th Percentile, based on 10 years data

Fire Danger Area:
- Dead F.M. Critical %’s
- 10Hr. - 7%, 100Hr. - 14%
- 1000Hr. - 17%
* Meets NWCG Wx Station Standards

Fire Danger Interpretation:
- EXTREME -- Use extreme caution
- (Caution) -- Watch for change
- Moderate -- Lower Potential, but always be aware

Maximum -- Highest Burning Index by day for 2004 - 2013
Average -- shows peak fire season over 10 years (1093 observations)
90th Percentile -- Only 10% of the 1093 days from 2004 - 2013 had a Burning Index above 38

Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
- 20’ Wind Speed over 15 mph, RH less than 30%,
- Temperature over 90, Energy Release Component over 35

Years to Remember: 2010 2011

Remember what Fire Danger tells you:
- Burning Index gives day-to-day fluctuations calculated from 2 pm temperature, humidity, wind, daily temperature & rh ranges, and precip duration.
- Wind is part of BI calculation.
- Watch local conditions and variations across the landscape – Fuel, Weather, Topography.
- Listen to 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 fire. 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 10th percentile for pine is 120% & 115% in yaupon in SETX.

Responsible Agency: Mike Dunivan, TFS
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Maximum, Average, and 90th Percentile, based on 10 years data

Fire Danger Area:
- Dead F.M. Critical %'s
- 10Hr. - 7%, 100Hr. - 14%
- 1000Hr. - 17%
* Meets NWCG Wx Station Standards

Fire Danger Interpretation:
- EXTREME -- Use extreme caution
- (Caution) -- Watch for change
- Moderate -- Lower Potential, but always be aware

Maximum -- Highest Energy Release Component by day for 2004 - 2013
Average -- shows peak fire season over 10 years (1840 observations)
90th Percentile -- Only 10% of the 1840 days from 2004 - 2013 had an Energy Release Component above 35

Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
- 20' Wind Speed over 15 mph, RH less than 30%,
- Temperature over 90, Burning Index over 39

Years to Remember: 2011

Powerline Fire

Fuel Model: G - Short-Needle (Heavy Dead)

Remember what Fire Danger tells you:
- Energy Release Component gives seasonal trends calculated from 2 pm temperature, humidity, daily temperature & rh ranges, and precip duration.
- Wind is NOT part of ERC calculation.
- Watch local conditions and variations across the landscape -- ERC calculation.
- Listen to 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 10th percentile for pine in Southeast Texas is 120%.

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