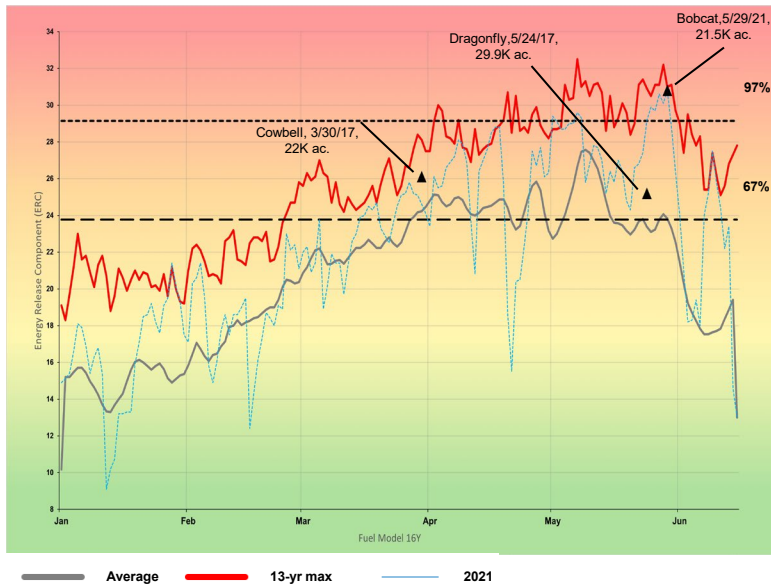




FDRA 4: South Florida FUEL MODEL 16Y

FIRE DANGER POCKET CARD

January 1 – June 15



NWS Forecasting Offices

Miami FL, Melbourne FL, Key West FL, Tampa FL

RAWS

086301 – Honeymoon RAWS	086702 – Cache
086401 – Oasis	086704 – Chekika
086402 – Miles City RAWS	084802 – Lake Wales
086404 – Raccoon Point RAWS	085801 – Brighton
086405 – Panther East	086001 – Loxahatchee
086406 – Panther West	086403 – Ochoppee RAWS

All stations meet NWCG Weather
Station standards

MAXIMUM: Highest **ERC** by day for 2012-2024.

AVERAGE: Shows peak fire season between late March and early June.

2021: Representative fire season **ERC**.

97th PERCENTILE: Only 3% of days between January 1 through June 15 during 2012-2024 had an **ERC** above **29**.

67th PERCENTILE: Represents an **ERC** level of **24** where large/multiple fire occurrences increase.

Energy Release Component (ERC) is a number related to the available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire. The **ERC** is considered a composite fuel moisture index as it reflects the contribution of all live and dead fuels to potential fire intensity. As live fuels cure and dead fuels dry, the **ERC** will increase and can be described as a build-up index. Each daily calculation considers the past 7 days in calculating the new number. Daily variations of the **ERC** are relatively small as wind is not part of the calculation.

Remember what Fire Danger tells you:

Fire danger gives general conditions across the entire FDRA. Watch for localized conditions and variations across the landscape--Fuel, Weather, Topography. Listen to weather forecasts--especially WIND.

Local Thresholds-- WATCH OUT!

Combinations of any of these factors can increase fire behavior: **20' windspeed** over 15 mph; **Temperature** over 90°; **RH** < 35%; **KBDI** > 650. Large fires become more frequent when **ERC** exceeds 27 and **BI** exceeds 21.

Past Experience / Local Knowledge:

- Expect extreme fire behavior in areas with high fuel loads
- Green fuels that contain volatile oils and waxes can burn even under high fuel moisture content – areas with invasive plants may exacerbate spotting issues
- Afternoon sea breezes usually leads to thunderstorms and sometimes lightning
- Some fuels available to burn ~1hr post rainfall
- Low water levels allow normally isolated fuels to be connected, removing barriers that constrain large fire events

Notable Fires:

• COWBELL:	03/30/17	Collier Co.,	21,963 ac	ERC = 26.1
• BOBCAT:	05/29/21	Palm Beach Co.,	21,501 ac	ERC = 30.8
• DRAGONFLY:	05/24/17	Broward Co.,	29,937 ac	ERC = 25.2

ENERGY RELEASE COMPONENT

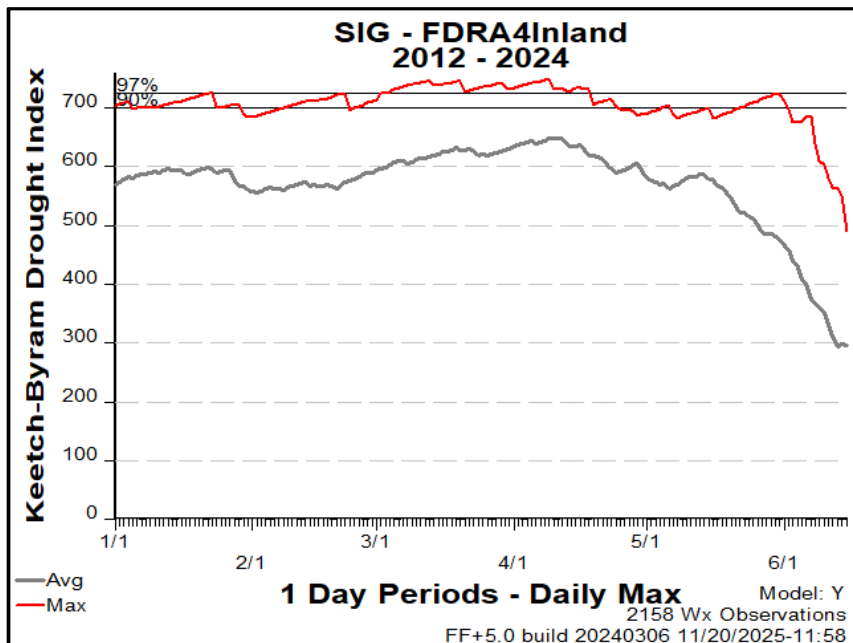
Fuel Model Y	Average Seasonal Value	Average Highest Value	Highest Observed Value
January	15.3	19.2	23.4
February	18.3	20.5	26.0
March	22.6	24.6	28.6
April	24.8	27.3	31.5
May	24.4	27.9	32.9
June	19.6	22.6	30.7
July	20.5	23.2	28.9
August	19.4	22.0	28.1
September	17.5	21.9	26.6
October	17.6	20.4	25.3
November	16.1	19.5	24.1
December	14.8	18.0	23.1

Approved 01/07/2026

This card is based on

13 years of data





Keetch-Byram Drought Index (KBDI) - A rating assessing the risk of fire by representing the net effect of evapotranspiration and precipitation in producing cumulative moisture deficiency in deep duff and upper soil layers. **KBDI over 650 is a critical threshold value** indicating swamp fuels may be available to burn where past fires have been infrequent and fuel loading is high.

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. The fire has to have the potential to spread. IC can be an aid in assessing spotting potential. **An IC value of 23 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** can be a cross reference to fireline intensity & flame length. It assists in assessing spotting & crown fire potential as well as suppression resource needs & tactical considerations. Doubling the burning index indicates that twice the effort will be required to contain a fire, providing all other parameters are held constant. **A BI value of 21 is a critical threshold value.** Values at this level see a sharp increase in large fire growth and multiple fire days during March, April & May.

