

\*\*\*DRAFT\*\*

## Fire Regime Condition Class (FRCC) Interagency Handbook Reference Conditions

**Modeler:** Ron Masters

**Date:** 5/28/04

**PNVG Code:** SEOK4

**Potential Natural Vegetation Group:** Xeric Pine-Oak Woodlands, Western

**Geographic Area:** Interior highlands and uplands of Arkansas, eastern Oklahoma, southern Missouri and uplands of east Texas.

**Description:** Potential natural vegetation group common to the Interior Highlands and xeric upland sites to the south and west of the Mississippi River to east Texas. In Highlands occupying all but steep north slopes at all elevations. In the northern part of this geographic area shortleaf pine (*Pinus echinata*), xeric oaks and some hickory dominate the overstory with a high percentage of oak on steep north slopes and on post oak (*Quercus stellata*) flats. In the southern part loblolly pine (*P. taeda*) is an associate. Associated species include post oak, blackjack oak (*Quercus marylandica*), mockernut hickory (*Carya tomentosa*) on drier sites and to the west black hickory (*Carya texana*). Pine often emergent on upper slopes. Stand density increases with available moisture. Various bluestems often dominate the understory.

**Fire Regime Description:** Fire regime group I, with frequent surface fires. Area fire frequency 3-4 year mean fire interval (range=1-12 years) from Masters et al. (1995).

### Vegetation Type and Structure

Class*	Percent of Landscape	Description
A: post replacement	17	Pine and oak reproduction to 15' tall. Herbaceous community dominated by bluestems and forbs. More persistent on shallow soils. Openings may be small to extensive and have scattered live trees.
B: mid-seral closed	6	Mid-seral with closed canopy (>70%; on mountainous sites >60%) shortleaf and loblolly pine and pole-sized oak with little or no herbaceous understory.
C: mid- seral open	33	Mid-seral open woodland/savanna pine and oak overstory with bluestem grasses and forbs. Shrub layer may be prevalent on some sites and dominated by various oak sprouts and a few shrub species. Prevalence highly dependant on time since burned. Cover <70%; on mountainous sites cover <60%.
D: late- seral open	40	Late-seral woodland/savanna pine and oak overstory with bluestem grasses and forbs. Shrub layer may be prevalent on some sites and dominated by various oak sprouts and a few shrub species. Prevalence highly dependant on time since burned. Shrub layer may be absent on other sites, particularly on shallow soils. Cover <70%; on mountainous sites cover <60%.
E: late- seral closed	5	Late-seral, closed canopy (>70%; on mountainous sites >60%) pine-oak dominated overstory community. No herbaceous cover and few shrubs.
Total	100	

\*Formal codes for classes A-E are: AESP, BMSC, CMSO, DLSO, and ELSC, respectively.

### **Fire Frequency and Severity**

Fire Severity	Fire Frequency (yrs)	Probability	Percent, All Fires	Description
Replacement Fire	104	.01	4	Late growing season fire that occurs in drought years
Non-Replacement Fire	4.5	.22	96	Primarily surface fire in all classes. Some mosaic fire.
All Fire Frequency*	4.3	.23	100	

\*All Fire Probability = sum of replacement fire and non-replacement fire probabilities. All Fire Frequency = inverse of all fire probability (previous calculation).

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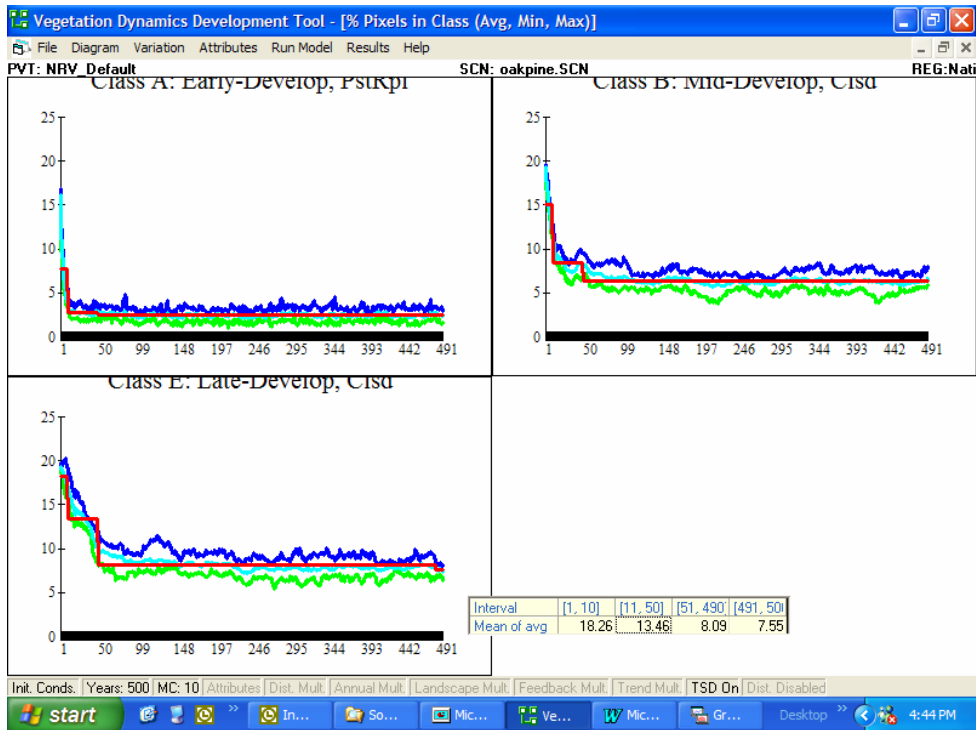
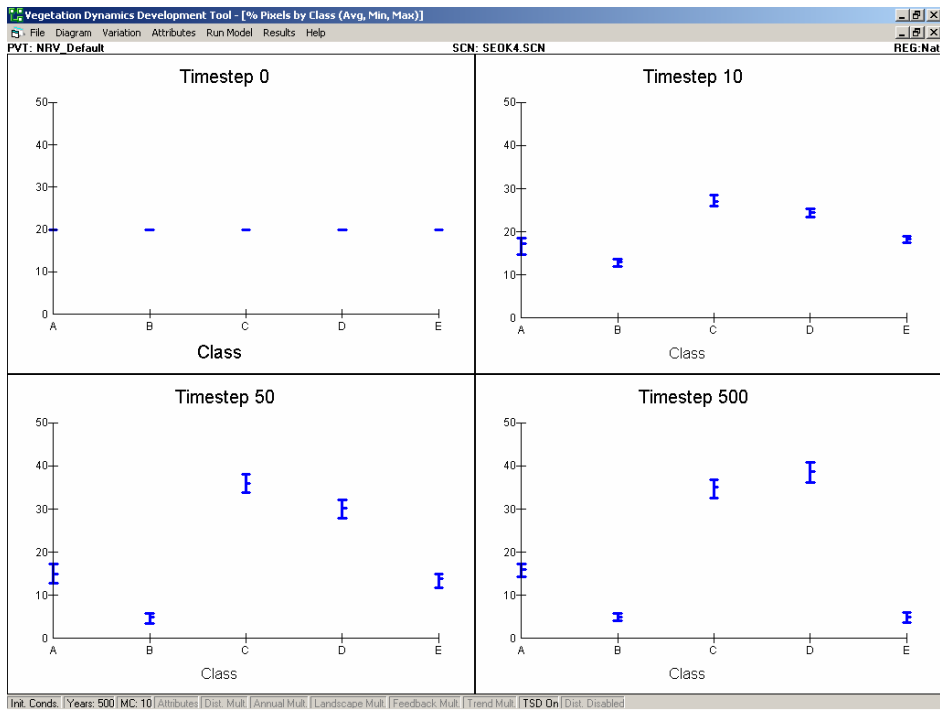
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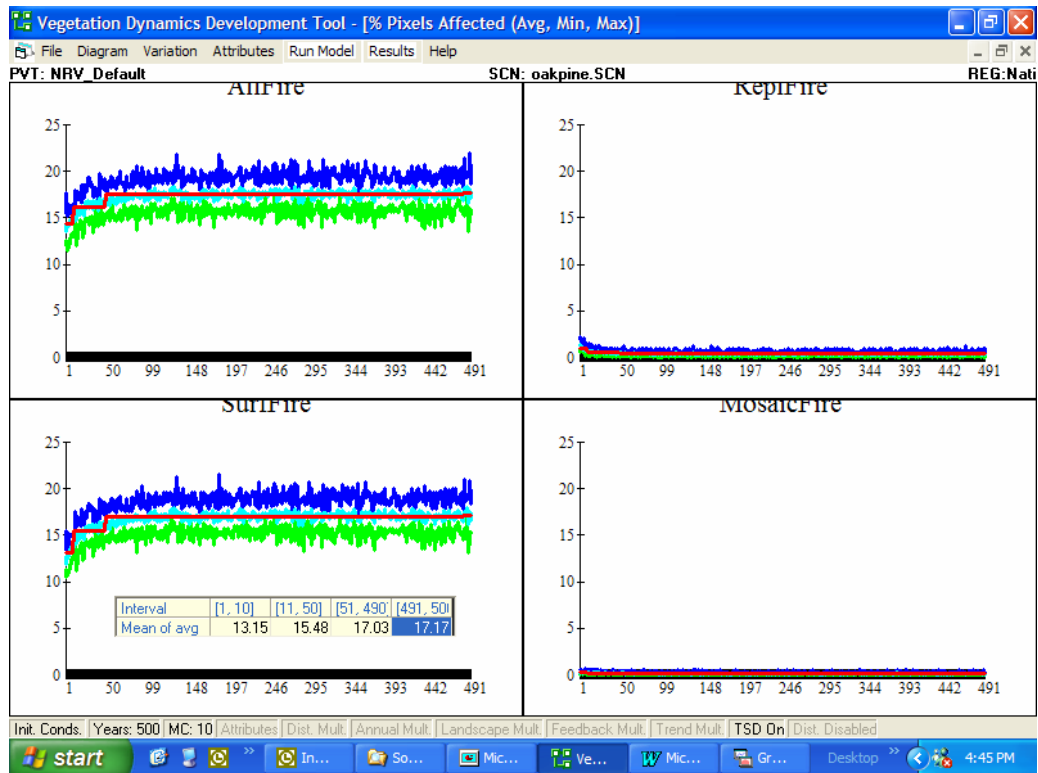
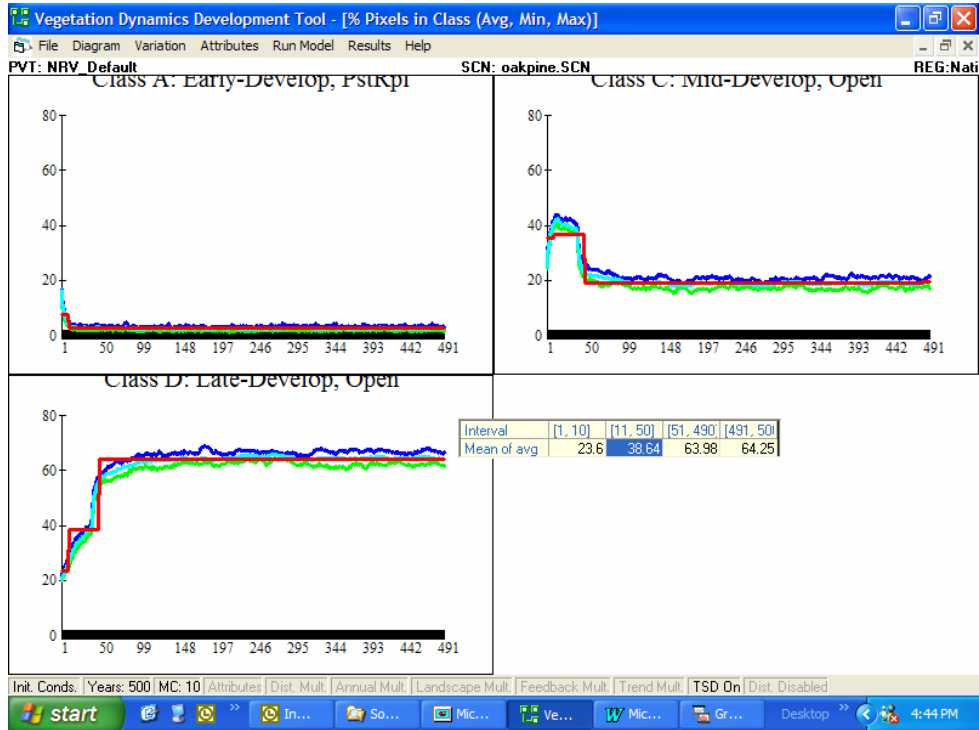
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## VDDT File Documentation

Include screen captures (print-screens) from any of the VDDT graphs that were used to develop reference conditions.







Reference conditions circa 1900.



Reference conditions circa 1925.



Reference conditions circa 1920, near Beavers Bend, Oklahoma (from Honess 1923).





A. Post-replacement – early.



A. Post-replacement – early.





B. Mid-seral closed.



B. Mid-seral closed.





C. Mid-seral open.



C. Mid-seral open.





D. Late-seral open.



D. Late-seral open.





E. Late-seral closed



E. Late-seral closed.



E. Late-seral closed landscape, Ouachita Highlands.