

Monitoring Report
Fredericksburg and Spotsylvania National Military Park
Spotsylvania Courthouse Unit
Spots CH RX2
30 March 2005

Introduction: The area consists of seven fields for a total of 130 acres. 87 acres were burned on March 22, 2005. The remaining fields were burned on this day. These areas are usually bush-hogged by park maintenance one to two times a year. The purposes of the burn are to reduce brushy fuels to open up the historic scene, open up and maintain vistas, and promote the growth of native tall grasses, so that park maintenance will no longer need to use time, equipment, and fuel to maintain these open fields, and so that park visitors can get a feeling for the battlefield as it was during the Civil War.

Description: The area to be burned is located in the Spotsylvania Courthouse Unit of Fredericksburg and Spotsylvania National Military Park in Spotsylvania County, Virginia. The unit is partially surrounded by blacktop road and is fuel model 1. The area consists of warm season native grasses, cool season exotic grasses, and shrub/scrub to a height of 4-6 feet. A climax forest in this area is oak/hickory.

Briefing: Part of this unit was burned on March 22, 2005. The remaining unburned areas of the unit will be burned today. A total of 15 personnel (see Table 1) were assembled at the Bloody Angle parking area at 1000. At 10:30am Burn Boss trainee Gregg Kneipp went through introductions and gave quick briefing. The spot weather forecast predicted partly cloudy skies with 0% chance of precipitation. A maximum temperature of 68°F was predicted with a 20 foot wind speed from the Southeast at 5 mph. Mixing height was predicted at 2500 feet with a Southeastern transport winds of 20 mph. Expected minimum RH was 40%.

Table 1. Burn Day Personnel.

Name	Position Qualification	Home Unit
Gregg Kneipp	Burn Boss trainee/RXB2(t)	FRSP
Tim Craig	Burn Boss/RXB2	FWS
Keith Kelly +3	Igniton Boss/CRWB	FRSP
Bob Howard +6	Holding Boss/CRWB	FRSP
Marie Soper	Monitor/FEMO(t)	FRSP
Missy Forder	Monitor/FEMO	SHEN

Burn Day Chronology March 30, 2005

1000- Personnel gather at the Upton field parking for briefing.
1030- Briefing

Landrum House Field (North)

(Finishing from last week)

1100- Weather taken: Temp 60°F, RH 40%, winds out of the NE 1.5 mph
1100- A test fire is lit and the decision is made to begin ignition.
1110- Backing fire rates of spread 4feet in 2 min, flame lengths 6in-2ft.
1120- Fine dead fuel moisture is 8%, Probability of ignition is 40%.
1140- Gusts from the NW provide flame lengths of 4-6ft.
1145- Small section of light fuels burn completely clean.
1200- End ignition.

Landrum House Field (South)

1215- Begin ignition Landrum House field South.
1230- Flanking fire flame lengths 3-4 feet, rates of spread 4 feet in 1.5 min.
1300- End ignition.

Middle Field

1400- Begin ignition of Middle field.
1430- End ignition.

Native Grass Field

1500- Begin ignition of the Native grass field.
1505- Fuel consists of very fine light native grasses. Flame lengths observed are 4-20 feet. Intense heat is released. Fire whirls are observed.
1510- The unit is rung for safety purposes.
1512- Good smoke dispersion, transport winds are observed from the SE.
1515- End ignition.

Crescent Field

1530- Begin ignition of the Crescent field.
1545- An engine is used to put a wetline along Anderson road.
1615- End ignition.
1620- Discussion and comments about the days events.
1630-Resources released.

Weather: The weather for the burn was partly cloudy to mostly sunny skies. High clouds were observed. Temperatures ranged from 60-69 °F. Relative humidity's ranged from 35-42% with the lowest reading at 1400. Mid flame winds were variable.

Fire Behavior: Flame lengths on the backing fire were generally 1-2 feet with flanking fire of 3-7 feet. Rates of spread were generally 1-4 CH/HR.

The Native grass field, containing mostly fine dead cured grasses, had flame lengths of up to 20 feet and fire whirls were observed. Excellent smoke dispersion resulted from an unstable atmosphere. The mid-flame winds were variable in direction and ranged from calm to 4.0 mph. Fine dead fuel moistures were 8-9% and the probability of ignition was 40-50%.

Table 2. Burn Prescription – March 30, 2005

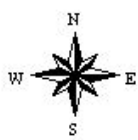
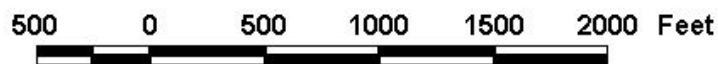
Weather	Acceptable Range	Optimum	Observed*
Temperature	30-70 F	50-60 F	60-69 F
Relative Humidity	20-70 %	20-30 %	35-42 %
Wind Direction	Any	N	variable
Wind Speed (midflame)	1-6 mph	1-4 mph	0 – 4 mph
Transport Wind Direction (range)	Any	N	SE
Fuel Moisture 1 Hour	4-15%	6-8%	8-9%
10 Hour	5-25%	5-12%	X

Table 3. Weather Observations - March 30, 2005

Time	Dry Bulb Temp F	Wet Bulb	RH %	Wind Speed MPH	Wind Direction	Skies
1100	60	48	40	1.5	NE	M. Sunny
1200	64	50	35	2.0	W	M. Cloudy
1300	64	51	39	0-2	SW	M. Cloudy
1400	68	53	35	2-4	E	M. Cloudy
1500	69	54	35	1-4	NW	M. Sunny
1600	68	55	42	1-3	ESE	P. Sunny

Preparer: Missy Forder, FEMO, 31 March, 2005

Fredericksburg and Spotsylvania National Military Park Spotsylvania Courthouse RX Burn, 2005



- Trail
- Roads
 - paved
 - unpaved
- Earthworks
- Bndy
- Burn Unit

