

Monitoring Report
Fredericksburg and Spotsylvania National Military Park
Spotsylvania Courthouse Unit
Spots CH RX
April 28 2006

Introduction: The area consists of seven fields for a total of 130 acres. 35.8 acres were burned on April 28, 2006. The remaining fields were to be burned the next week, but due to green-up, it was decided not to burn anymore this year. 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 and 3. 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: A county wide burn ban was in place on April 4, and was not lifted until April 25, 2006. The original RX burn was planned for March 31, but the B-Loop fire at Prince William Forest Park in NCR interfered with the prescribed burn. So, based on wind and forecast rain, the burn was scheduled for April 28, 2006. The wind was within the upper limits of the prescription. Without the wind, I don't think that the RX burn would have been as successful. A total of 11 personnel (see Table 1) were assembled at the Bloody Angle parking area at 0900. At 0930 am Burn Boss Gregg Kneipp went through introductions and gave quick briefing. The spot weather forecast predicted mostly sunny skies with 0% chance of precipitation. A maximum temperature of 69°F was predicted with a 20 foot wind speed from the Northeast at 15 mph. Mixing height was predicted at 4000 feet with a Northeastern transport winds of 15 mph. Expected minimum RH was 30%.

Table 1. Burn Day Personnel.

Name	Position Qualification	Home Unit
Gregg Kneipp	Burn Boss / RXB2	FRSP
Bob Howard +2	Ignition Boss/CRWB	FRSP
Joe Temple +6	Holding Boss/CRWB	FRSP

Burn Day Chronology April 28, 2006

0900- Personnel gather at the Upton field parking for briefing.
0930- Briefing

Upton Field (North)

1008- Test fire started
1010- Fire started, using strip head fires, about 20 to 40 feet wide
1040- Ignition technique changed to strip into the wind, and flanking fires off the strip – ineffective due to the greenness of the fuels, flame lengths 6in-2ft.
1115- FSP – Engine 11 stuck in mud, ignition stopped, recovered around 1141
1215- Finish ignition, out by 1230

McCoull Field

1245- Begin ignition
1450- End ignition of main field
1519- Begin ignition of small field on other side of intermittent stream, next to Anderson Drive, completed at 1530
1540- Last field is ignited, adjacent to McCoull Road and woodline, completed at 1615

Native Grass Field

1630- Begin ignition of the Native grass field.
1639- Fuel consists of very fine light native grasses. Flame lengths observed are 4-20 feet. Intense heat is released. Fire whirls are observed.
1640- Good smoke dispersion
1700- End ignition.

Weather: The weather for the burn was mostly sunny skies. High clouds were observed. Temperatures ranged from 53-65 °F. Relative humidity's ranged from 25-48% with the lowest reading at 1700. Mid flame winds were variable later in the day, and were influenced by the trees on the edges of the fields.

Fire Behavior: Flame lengths on the backing fire were generally 1-2 feet with flanking fire of 2-3 feet. 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 2 to 6 mph.

Table 2. Burn Prescription – April 28, 2006

Weather	Acceptable Range	Optimum	Observed*
Temperature	30-70 F	50-60 F	53 - 65 F
Relative Humidity	20-70 %	20-30 %	25 – 48 %

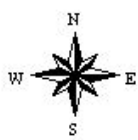
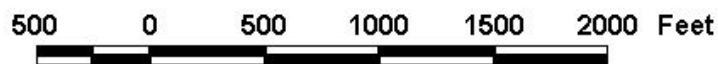
Wind Direction	Any	N	Mainly from N-NE
Wind Speed (midflame)	1-6 mph	1-4 mph	2 – 6 mph
Transport Wind Direction (range)	Any	N	NE
Fuel Moisture 1 Hour	4-15%	6-8%	6 – 8 %
10 Hour	5-25%	5-12%	10

Table 3. Weather Observations - April 28, 2006

Time	Dry Bulb Temp F	RH %	Wind Speed MPH	Wind Direction	Skies
0900	54	48	5-6	NNE	M. Sunny
1000	54	45	3-4	NE	M. Sunny
1100	59	36	2-3	NE	M. Sunny
1200	59	34	4-5	NNW	M. Sunny
1300	62	33	4-5	NW	M. Sunny
1400	65	33	2-3	NW	M. Sunny
1500	64	30	5-6	NNW	M. Sunny
1600	63	26	6	NNE	M. Sunny
1700	64	25	4-5	NE	M. Sunny

Preparer: Gregg Kneipp, RXB2, May 9, 2006

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



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

