Monitoring Report
Fredericksburg and Spotsylvania National Military Park
Spotsy CH 2
March 18, 2008

Introduction: The area consists of seven fields for a total of 130 acres. 50 acres were burned on March 14, 2008. The remaining acres were burned on March 18, 2008, except for the moon field which was not completed due to weather conditions. These fields are usually bush-hogged by park maintenance once a year. A new technique was started in the summer of '07, to bush hog the woody growth in the Landrum and Middle fields at least 2 times, so as to stress the shrubby trees repeatedly, so as to kill them. This will be repeated in '08, and if necessary, '09 The purposes of the burn are to reduce brushy fuels, 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. Furthermore, this will allow park visitors to 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 2-4 feet. The fields had not progressed as far along in green up as the same time last year. The hazel alders (*Alnus serrulata*) were not in bloom and the mixed hardwood forest surrounding the unit was at 5-7% of green-up. Approximatley, 15% of the shortest grasses were green and a few Cricket frogs (*Acris crepitans*) could be heard in some of the wet areas of the fields. A few cherry trees (*Prunus serotina*) and pear trees *(Pyrus calleryana)* were observed to be in bloom while driving to the prescribed burn.

Briefing: A total of 13 personnel (see Table 1) were assembled at the Bloody Angle parking area at 0915. At 0930 am Burn Boss Gregg Kneipp went through introductions and gave a briefing. The spot weather forecast predicted cloudy skies with 10% chance of precipitation. A maximum temperature of 53 °F was predicted with a 20 foot winds 5-11 mph out of the South with gusts up to 25 mph in the afternoon as a warm front moved into the area. Mixing height was predicted at 700-2100 feet increasing to 3400-4900 feet in the afternoon with Southeast transport winds of 8-17 mph. Expected minimum RH was 46%.

Table 1. Burn Day Personnel.

Name	Position Qualification	Home Unit
Gregg Kneipp	Burn Boss / RXB2	FRSP
Bob Howard	Holding /CRWB	AD
Regina Carrico	Holding /FFT2	FRSP
Chuck Lochart	Holding/FFT2	FRSP
Joe Jerrells	Ignition Boss/CRWB	SHEN
Justin Phippen	Ignition/FFT1-t	SHEN
Craig Johnson	Ignition/FFT2	FRSP
Keith Kelly	Ignition/CRWB	FRSP
Leslie Winston	ENOP/FFT2	RICH
Barry Krieg	ENOP/FFT2	RICH

John Stoddard	ENOP/FFT2	FRSP
John Reifenberg	ENOP/FFT2	FRSP
Missy Forder	FEMO	SHEN

Burn Day Chronology March 18, 2008

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

Landrum Field (Northern drainage and Western side)
1000- Test fire.
1015- Ignition begins in the northeast corner proceeding to the east along the northern most drainage that was not bush hogged.
1045- Flame lengths .5-1 feet, ROS <1CHHR.
1115- Large fallen tree torches.
1115- Winds variable. FL 2-4.
1125- Begin West side of Landrum field.
1200- FL 2-4. ROS <1CHHR.
1230- Wetline around cedar trees in Southwest portion of field.
1315- End ignition.

Landrum Field (Southern drainage)
1430- Test fire.
1435- Begin ignition in the southern drainage along the western forested edge. Winds are light and variable with occasional gusts.
1445- FL 1-3 feet.
1450- End ignition.

Middle Field
1500- Test fire.
1505- Begin ignition northwest corner of field.
1510- Flame lengths 2-4 feet in the taller shrub oaks.
1515- Wind gusts and a few small spots across western edge.
1525- End ignition.
1530- Call it a day due to strong gusts and sustained winds at 8 mph.

Note: The Moon field was not burned due to an increase in sustained winds and gusts as a warm front approached.

Weather: The weather for the burn was mostly cloudy skies. Temperatures ranged from 48-58 °F. Relative humidity's ranged from 37- 48% with the lowest reading at 1430. Winds were out of the Southwest for most of the day. At about 1515 winds were becoming increasingly gusty and erratic as a warm front moved in.

Fire Behavior: Flame lengths on the backing fire were generally 6 inches - 2 feet with flanking fire of 2-3 feet. The middle field has a lot of shrubby oaks and flame lengths of

up to 4 feet were observed. Rates of spread observed were generally < 1 CHHR. A flanking fire into the wind was utilized to maximize the residence time of the flaming front and to stress the woody vegetation.

Table 2. Burn Prescription – March 18, 2008

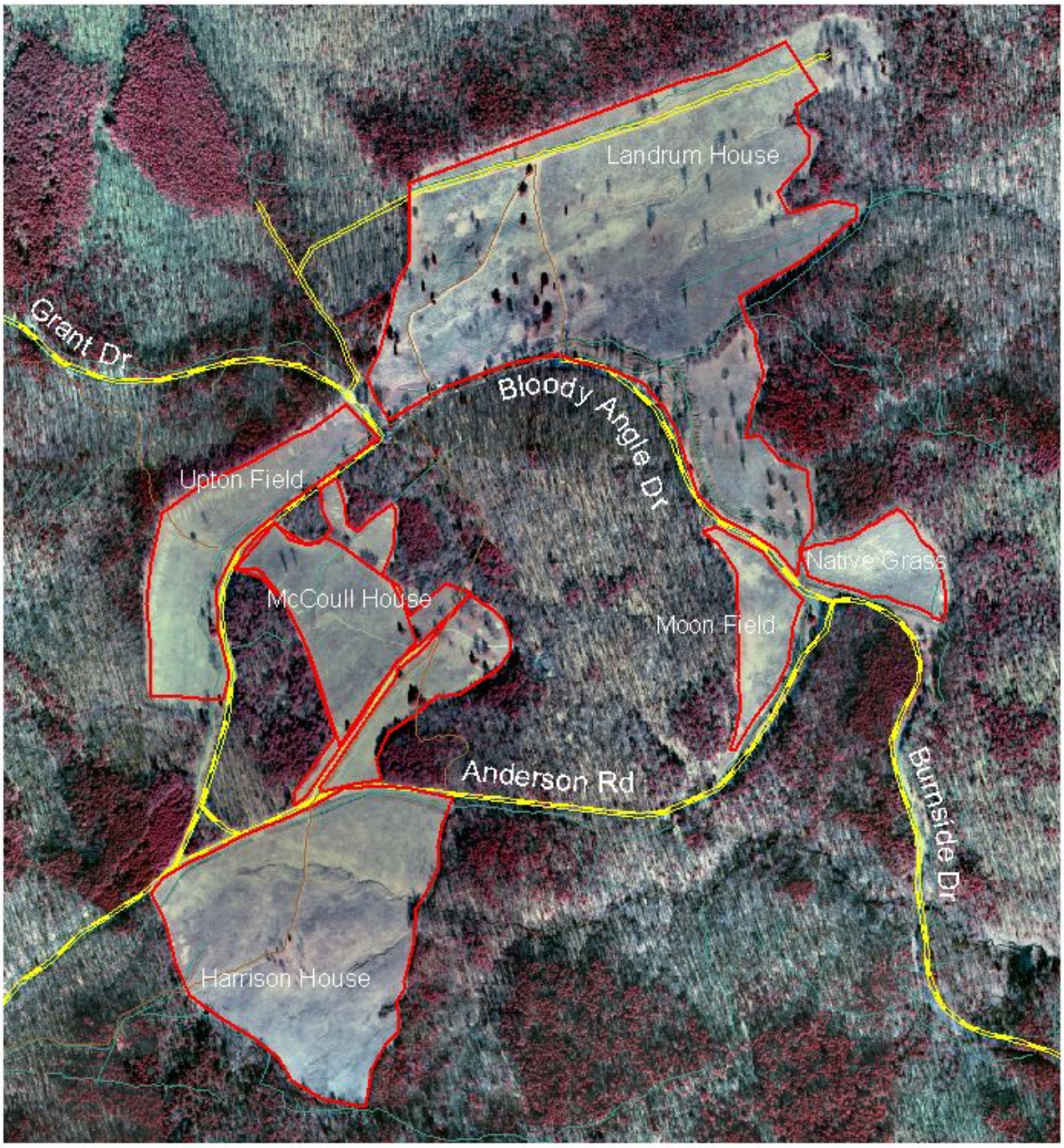
Weather	**Acceptable Range**	**Optimum**	**Observed***
Temperature	30-70 F	50-60 F	48 - 58 F
Relative Humidity	20-70 %	20-30 %	37 – 48 %
Wind Direction	Any	N	SW
Wind Speed (midflame)	1-6 mph	1-4 mph	2 – 6 mph
Transport Wind Direction (range)	Any	N	SE
Fuel Moisture 1 Hour	4-15%	6-8%	7-9%
10 Hour	5-25%	5-12%	10-12%

Table 3. Weather Observations - March 18, 2008

Time	**Dry Bulb Temp F**	**RH %**	**Wind Speed MPH**	**Wind Direction**	**Skies**
1000	48	48	2-4	South	M. Cloudy
1100	52	47	3-5	SW	M. Cloudy
1200	53	47	2-4	SW	M. Cloudy
1245	54	43	2-4	SW	M. Cloudy
1320	54	37	2-6	SW	M. Cloudy
1430	58	37	2-6	variable	M. Cloudy
1525	---	---	8+	SW	M. Cloudy

Preparer: Missy Forder, FEMO, March 25, 2008

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



500 0 500 1000 1500 2000 Feet

N
W E
S

Trail
Roads
paved
unpaved
Earthworks
Bndy
Burn Unit