

Monitoring Report
Fredericksburg and Spotsylvania National Military Park
Spotsy CH 1
March 13 2007

Introduction: The area consists of seven fields for a total of 130 acres. Originally, 50 acres was to be burned, but due to increased winds, and the lateness of the day, only 14 acres were burned on March 13, 2007. The remaining acres were to be burned during the next available window. These fields 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 2-6 feet. Due to a mis-communication with maintenance a portion of the Harrison House field was bush-hogged in November. As a result there was no growing season between the cutting and the prescribed fire and resulting fire behavior was less intense. At the time of this burn, the hazel alders (*Alnus serrulata*) were blooming in the drainage area of the Harrison Hose field, the mixed hardwood forest surrounding the unit was at 5-10% of green-up, and about 25% of the shortest grasses were green, and the Cricket frogs (*Acris crepitans*) could be heard in some of the wet areas.

Briefing: A total of 12 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 mostly partly cloudy skies with 2% chance of precipitation. A maximum temperature of 72°F was predicted with a 20 foot wind speed from the Southwest at 8 mph. Mixing height was predicted at 10,000 feet with Southwestern transport winds of 17 mph. Expected minimum RH was 35%. The fire weather forecast for the day indicated partly cloudy skies, maximum temperature 72°F, minimum relative humidity 35%, 20' winds out of the west during the morning moving towards the SW in the afternoon at 5 to 11 mph and mixing height 10,350' with transport winds 22 mph out of the west for a ventilation rate of 206,570.

Table 1. Burn Day Personnel.

Name	Position Qualification	Home Unit
Gregg Kneipp	Burn Boss / RXB2	FRSP
Bob Howard	Holding /CRWB	FRSP
Barry Krieg	Holding/ENOP	RICH
KellyAnn Gorman	Holding/FFT2	SHEN
Cheryl Tanner	Holding/FFT2	FRSP

Jeremy Stoddard	Holding/FFT2	AD
John Stoddard	Holding/ENOP	FRSP
Joe Temple	Ignition Boss/CRWB	FRSP
John Reifenberg	Ignition/FFT2	FRSP
Leslie Winston	Ignition /ENOP/FFT2	RICH
Gina Smith	Ignition/ENOP/FFT2	RICH
Missy Forder	FEMO	SHEN

Burn Day Chronology March 13, 2006

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

0930- Briefing

Harrison House Field (drainage area that was not bush hogged)

1015- Test fire started

1025- Fire started at East edge of field along the woods. The fire is lit along either side of the center drainage area that was not bush hogged.

1030- Some of the wet areas in the drainage area do not burn, other areas burn quite well.

1040- Flame lengths 1-3 feet, ROS <1CHHR.

1110- End of ignition in the center drainage area.

1120- Begin ignition of two other wetland fingers in the Northeastern corner of the field.

1125- Windshift occurs to the South as the sun comes out and results in the fire spreading into the field from the ditch area. The engine is used to extinguish the small area that was spreading towards the woods.

1130- The burn boss makes the decision to let the most southern edge of the fire burn into the other finger.

1145- End ignition of both fingers.

Native Grass Field

1215- Pumpkin turns into Jack-O-lantern.

1315- Begin ignition.

1317- Ignitors begin from the Northern most point of the meadow moving West and East establishing a blackline along the forested edge of the meadow. The fire mainly backs and occasionally flanks.

1333- Flame lengths are 2-8 foot high and fire whirls are observed.

1405- End ignition.

Landrum House Field (middle)

1415- Another short briefing is held.

1444- Begin ignition.

1445- Fire is set along the Northeast corner proceeding South along the forested edge, FL 6 inches to 1.5 feet.

1450- Once the Northeast corner is secure fire is ignited along the road edge.

1520- Flame lengths of 1-4 feet are observed as both sides of the fire burn together.

1555- End ignition.

1615- The burn boss makes the decision to not burn the Landrum House field due to the lateness of the day and increased winds. Wind gusts increased up to 12 mph.

1640- Debriefing

Weather: The weather for the burn was partly cloudy skies. Temperatures ranged from 55-76 °F. Relative humidity's ranged from 47-65% with the lowest reading at 1500. Winds were variable in the morning, and had a southerly component in the afternoon as a high pressure system moved in.

Fire Behavior: Flame lengths on the backing fire were generally 6 inches - 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 10 feet and fire whirls were observed. Rates of spread observed were generally < 1 CHHR.

Table 2. Burn Prescription – March 13, 2007

Weather	Acceptable Range	Optimum	Observed*
Temperature	30-70 F	50-60 F	55 - 76 F
Relative Humidity	20-70 %	20-30 %	47 – 65 %
Wind Direction	Any	N	Mainly from South
Wind Speed (midflame)	1-6 mph	1-4 mph	2 – 6 mph
Transport Wind Direction (range)	Any	N	SW
Fuel Moisture 1 Hour	4-15%	6-8%	7-11%
10 Hour	5-25%	5-12%	10-13%

Table 3. Weather Observations - March 13, 2007

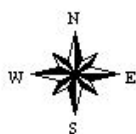
Time	Dry Bulb Temp F	RH %	Wind Speed MPH	Wind Direction	Skies
0900	55	65	4-6	SW	P. Cloudy
1015	59	62	2-6	SW	P. Cloudy
1100	61	58	2-7	SSW	P. Sunny
1230	71	56	2-6	South	M. Sunny
1300	74	43	2-4	South	P. Cloudy
1400	75	47	3-5	SW	M. Sunny
1500	75	47	2-4	Variable	M. Sunny
1600	76	48	4-8	South	M. Sunny

Preparer: Missy Forder, FEMO, April 16, 2007

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



500 0 500 1000 1500 2000 Feet



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

