

### Memo 3: Barry Point Fire: Initial Precipitation

Date: August 16, 2012 (1100)

Analyst: Rick Stratton (LTAN) ([rdstratton@fs.fed.us](mailto:rdstratton@fs.fed.us); (b) (6)

#### Background

I have been on the fire about a week. The topic of the likelihood of thunderstorms and precipitation has come up several times in discussions with the local unit and team. I thought I'd look into the historical record using Strawberry RAWS (353423) to see when precept is first received and how much the storm(s) produce. I pulled data from 1982 to 2011 for the months of August and September. I omitted 1989 and 1996 because I believe the RAWS was down.

#### Results

Year	Month & Day Range	Amount (")
1982	Aug. 20	0.07
1983	Aug. 19-24	1.42
1984	Aug. 30-31	1.13
1985	Aug. 18	0.04
1986	Sept. 15	1.14
1987	Aug. 13	0.02
1988	Sept. 19-20	0.30
1989	RAWS down (?)	0.00
1990	Aug. 18-21	0.62
1991	Aug. 21	0.06
1992	Aug. 13-15	0.31
1993	Aug. 12-16	1.37
1994	Sept. 11	0.11
1995	No precip	0.00
1996	RAWS down (?)	0.00
1997	Sept. 3	0.04
1998	Aug. 20	0.02
1999	Aug. 5-6	0.42
2000	Aug. 8	.07
2001	Aug. 9	0.04
2002	Sept. 17	0.02
2003	Aug. 2-4	0.21
2004	Aug. 22-26	0.46
2005	Aug. 6	0.18
2006	Aug. 20	2.48

2007	Aug. 19	0.31
2008	Aug. 18	0.04
2009	Aug. 2-7	0.19
2010	Aug. 11	0.08
2011	No precip	0.00

### Discussion

You can group these dates and classify them as early Aug., mid Aug., late Aug., early and mid Sept., and Oct. The percent occurrence and average amount is shown. In other words, based on historical data, there is a 50% chance that the fire will receive measurable precept in the next week.

Group	Count	Likelihood (%)	Avg. Amount of Precip (")
early Aug.	5	18%	.21
mid Aug.	14	50%	.71
late Aug.	2	7%	.49
early to mid Sept.	5	18%	.32
Oct.	2	7%	n/a

Fremont FIRE WEATHER OBSERVATIONS  
 Niwema FIRE Barry Point

DATE 8/11/12

FREMONT COUNTY

LAKE

Barry Point

LOCATION	ELEV.	LOCAL TIME	TEMP.		RH	WIND		REMARKS
			DRY	WET		DIR.	SP.	
Dix Mt	5140	1000	77	55	25	NE	4-6	FD 6% PI 50%
N 48° 07.572'		1100	81	57	23	NE	4-8 (1-2)	FD 5% PI 60%
W 120° 36.914'		1200	86	57	16	NE	4-5 (1-2)	FD 5% PI 3%
Ridge top		1300	86	57	16	NE	5-10 SW-NW (1-2)	FD 3% PI 80%
S aspect		1400	84	55	14	NE	5-10 (1-2)	FD 3% PI 80%
L w/ fire		1500	87	55	11	E	5-8 (1-2)	FD 3% PI 80%
		1600	85	55	13	E	4-5	FD 6% PI 70%
		1700	84	55	13	E	3-5	FD 6% PI 60%
		1800	82	54	15	E	2-4	FD 7% PI 50%
		1900	82	54	15	E	0-2	FD 7% PI 50%

AGENCY GFP 63

OBSERVER

ROUTT

FIRE WEATHER OBSERVATIONS

FOREST COUNTY Premont  
 Lake Winema  
 FIRE Barry 16 wt

DATE 8/12/12

LOCATION	ELEV.	LOCAL TIME	TEMP.			RH(%)	WIND		REMARKS
			DRY	WET	DP		DIR.	SP.	
Div Mile	5140	0900	51	48		82	SW	0-1	FD 16% Thick inversion PI 10% 200' visib
N 42° 07.572'		1000	62	48		37	SW	0-1	FD 18% PI 20%
W 120° 36.914'		1100	67	50		21	✓	—	FD 10% PI 30% vly slowly lift
		1200	75	55		29	SW	N 54 S 14	FD 8% PI 40%
Butte summit		1300	83	57		20	E	2-4	Inversion FD 2% PI 50% lift steady
N S Aspect		1400	85	58		19	E	2-4	FD 6% PI 60%
		1500	86	58		18	E	2-5	FD 6% PI 60%
Level w/ fire		1600	85	57		17	E	1-4	Partial cum FD 7% PI 50% cloud over
		1700	88	58		15	E	1-3	FD 7% PI 50% W SW 1-3
		1800	89	58		14	W SW	4-8	FD 6% PI 60%
		1900	86	57		16	SW	5-7 (10)	FD 6% PI 60%

AGENCY GFP 6.B OBSERVER ROUTT

FIRE WEATHER OBSERVATIONS

FOREST COUNTY Fremont  
 COUNTY Lake/Windma  
 FIRE Berry Pt. Mt

DATE 8/13/12

LOCATION	ELEV.	LOCAL TIME	TEMP.		RH	WIND		REMARKS
			DRY	WET		DIR.	SP.	
<u>DIV M</u>	<u>5140</u>	<u>0900</u>	<u>64</u>	<u>54</u>	<u>54</u>	<u>SW</u>	<u>1-3</u>	<u>FD 11% Inversion FL 20% lift slowly</u>
<u>N 42° 07.572'</u>		<u>1000</u>	<u>71</u>	<u>54</u>	<u>34</u>	<u>up slope</u>	<u>1-3</u>	<u>FD 7% PI 50% still lifting</u>
<u>W 120° 36.914'</u>		<u>1100</u>	<u>83</u>	<u>58</u>	<u>22</u>	<u>NE</u>	<u>3-6</u>	<u>FD 5% PI 70%</u>
		<u>1200</u>	<u>88</u>	<u>60</u>	<u>20</u>	<u>NE</u>	<u>2-4</u>	<u>FD 4% PI 80% 80% 80%</u>
<u>Hilltop N of fire</u>		<u>1300</u>	<u>94</u>	<u>68</u>	<u>14</u>	<u>NE</u>	<u>3-6</u>	<u>FD 3% PI 90%</u>
<u>level w/ fire</u>		<u>1400</u>	<u>94</u>	<u>59</u>	<u>11</u>	<u>NE</u>	<u>4-6</u>	<u>FD 3% PI 90%</u>
<u>Fire is N aspect</u>		<u>1500</u>	<u>90</u>	<u>58</u>	<u>13</u>	<u>E</u>	<u>2-4</u>	<u>FD 3% PI 90% Wind shift @ 1530 (SW) ↑ FB on ridge</u>
<u>unshed</u>		<u>1600</u>	<u>87</u>	<u>59</u>	<u>19</u>	<u>SW</u>	<u>4-6</u>	<u>FD 4% PI 80%</u>
<u>0-30% slope</u>		<u>1700</u>	<u>87</u>	<u>59</u>	<u>19</u>	<u>SW</u>	<u>3-6</u>	<u>FD 4% PI 80%</u>
		<u>1800</u>	<u>84</u>	<u>58</u>	<u>21</u>	<u>SW</u>	<u>1-3</u>	<u>FD 4% PI 80%</u>
		<u>1900</u>	<u>81</u>	<u>57</u>	<u>23</u>	<u>SW</u>	<u>0-2</u>	<u>FD 4% PI 80%</u>
<u>AGENCY GPP LB</u>		<u>2000</u>	<u>80</u>	<u>56</u>	<u>24</u>	<u>SW</u>	<u>0-2</u>	<u>FD 4% PI 80%</u>

FRONTIER FIRE WEATHER OBSERVATIONS  
 COUNTY Lake / WINGMAN FIRE BARRY POINT

DATE 8/14/12

FOREST COUNTY	LOCATION	ELEV.	LOCAL TIME	TEMP.		RH	WIND		REMARKS
				DRY	WET		DIR.	SP.	
	DIV W	5570	0900	74	53	85	N	NW 5-10	FD 8% PI 40% 50% cloud cumulus
			1000	75	53	83	N	0-1	FD 5% PI 60% 50% cloud
	Gentle slope E of		1100	80	56	81	NE	8-14	FD 5% PI 70%
	Safe zone 4/Main Dr line		1200	82	57	81	NW	1-3	FD 4% PI 80%
			1300	85	57	17	NW	2-4	FD 3% PI 90%
			1400	87	58	17	N	3-6 (8)	FD 3% PI 90%
	E aspect		1500	85	57	17	NW	2-4	FD 3% PI 90%
	L W fire		1600	84	57	19	NW	2-6	FD 4% PI 80% 4000' 7/15/12 8000' 5/20/12 summit aloft
	0-30% slope		1700	82	58	19	NW	1-3	FD 4% PI 80%
	unshaded		1800	86	58	18	W	3-7	FD 6% PI 60% W winds aloft
			1900	84	58	21	NW	3-6	FD 7% PI 50%
AGENCY	GFP 6B		2000	80	56	82	NW	1-3	FD 7% PI 50%

OBSERVER  
 ROUNTT

FOREST COUNTY Firewood at Lake Winema  
 FIRE Batty Point

FIRE-WEATHER OBSERVATIONS

LOCATION	ELEV.	LOCAL TIME	TEMP.		RH	WIND		REMARKS
			DRY	WET		DIR.	SP.	
Div M	5570	1000	75	54	26	NW	2-4	8% Heavy inversion FI 40% ~ 600 VIS
N 42°		1100	77	55	25	NW	W/SH 0-1	8% FI 40% FI 40% shaded by inversion
W 120°		1200	83	55	15	NW	2-5	FI 3% clear sunny PI 70%
Gentle Slope E of		1300	85	57	17	NW	0-1	FI 3% PI 70%
Safety Zone 4/Main		1400	83	56	18	SE	1-3	FI 3% (un) 6% shaded PI 90% 6%
Dozer line		1500	83	57	20	SE	0-2	FI 7% (un) 4% (un) PI 50% (un) 80% (un)
		1600	84	57	18	NE	W/SH 0-1	FI 7% PI 50%
E aspect 0-30%		1700	83	57	20	NW	1-3	FI 3% PI 40%
L w/ fire		1800	83	57	20	W	4-8	FI 8% PI 40%
Unshaded		1900	82	57	21	N/NW	4-8 (10)	FI 8% (un) 7% (un) PI 40% 50%
AGENCY GFP NCC-6B		2000	81	56		W/SH 0-1	4-7	FI 8% PI 40%
						ROUTT	(9)	

DATE 8/15/12

OBSERVER

FIRE - WEATHER INFORMATION

Time	Location	Elev.	Wind			Temp.		RH	Remarks	By
			Sp	Dr	Dry	wa	gp			
8-08	Wood	3007	3	E	70	49	38			
06/08	Wood	4600	V		70	52	35	V = variable	JD	
0800	DSL Complex		2	W	69	56	85	SUNNY NO CLOUDS	TD	
0800	DSL Complex		2	W	79	62	52	SUNNY NO CLOUDS	TD	
1100	DSL Complex		7S	S	96	62	40	SUNNY CLOUDS	TD	
1100	BARNEY POINT DIV ETC		4S	N	74	54	59	OVERCAST	RS	
2200	BEAVER DAM ROAD	5576	56	N	73	56	44	73% REL OVERCAST LIGHTNING TO 3/4	RS	
2300	BEAVER DAM ROAD DUNE HI 56.86 IN 120 36.48 W	5588	C	-	73	56	44	73% REL OVERCAST LIGHTNING TO 3/4	RS	
2400	BLANCH DPM RD HI 56.71 IN 120 35.49 S	5642	C	-	72	56	45	OVERCAST LIGHTNING TO 3/4	RS	

<b>Division Assignment List</b>			1. Branch <b>III DAY</b>		2. Division/Group <b>M PAGE1</b>			
3. Incident Name <b>BARRY POINT</b>			4. Operational Period <b>08/16/12 Thursday Day Shift 0600 - 1800</b>					
5. Operations Personnel								
Operations Chief		John Giller / Steve Rawlings		Division/Group Supervisor		Reggie Bray		
Operations Chief Planning		Laura Mayer/Steve Hawkins (t)		Air Attack Supervisor		Steve Mizikowski		
Branch Director		Bill Casey/Chris Huttzell (t)		Safety Officer		Russell Groves		
6. Resources Assigned this Period								
Strike Team/Task Force/ Resource Designator	Leader	Num of Pers.	Trans. Y/N	Drop Off PT./Time	Pick Up PT./Time			
HC2 Pro-1 C-12	John Meyer	20	N	0600	1800			
HC2 Pacific Coast C-20	Tommy Starks	20	N	0600	1800			
HC2IA GFP C-25	Tim Bell	20	N	0600	1800			
O-106 Warner Creek Inmate Crew	O-104	11	N	0600	1800			
O-107 Warner Creek Inmate Crew	O-105	11	N	0600	1800			
ENG E.Ore. TF TFLD/TFLD(t) E-29	Spellman/Haskins	17	N	0600	1800			
ENG4 HB Company E-53	David Austin	3	N	0600	1800			
ENG6 3B's Forestry E-48	Tom Armstrong	3	N	0600	1800			
ENG6 640 E-54	Jim Brown	3	N	0600	1800			
ENG6 654 E-56	Darrel Smith	3	N	0600	1800			
ENG6 Forrest Fire E-49	Forrest Sebold	3	N	0600	1800			
ENG6 Rogue River #2 E-46	Jim Huttema	3	N	0600	1800			
ENG6 Two Feathers E-59	John Fuls	3	N	0600	1800			
DOZ2 Dog Lake 2 E-38	Chris Holloway	1	N	0600	1800			
DOZ LYTLE SIMMS E-12	SIMMS, LYTLE	2	N	0600	1800			
WAT2 Water Truck Service Inc. E-70	Thomas Zulliger	1	N	0600	1800			
		1600	1500	1400	1300	1200	1100	1000
7. Control Operations		80	80	80	77	75	75	73 95
Mop up line from Dog Lake road south to 4020 Road.		27	30	32	39	41	41 20	39 3
Provide Structure Protection.			E-2	E LIGHT	SE-3	E-5 2-4	SE 3-5/1	NW 1-2
Mill Flat		9 6	9 6 90	6 90	6 90	7 90	8 90	4 7 20 3
Dir M		40 60	40 60 90	60 90	60 90	50 90	40 90	PI 50 90
8. Special Instructions								
Utilize Resource Advisor to minimize damage to heritage resources. On private lands, use safe and aggressive firefighting. Utilize direct tactics when safe.								
9. Division/Group Communications Summary								
Function	Frequency - RX	Frequency - TX	Tone	System	Channel	System	Channel	
Command	168.4750	173.8125	156.7		6			
Tactical Div/Group	168.2500	168.2500	156.7		5			
Logistics								
Air-to Ground	166.9625	166.9625			11			
Prepared by (Resource Unit Leader) Anne Shirley/Beth Kennedy				Approved by (Planning Section Chief) Deb Schmidt		Date Prepared 08/15/12		Time Prepared 1905



Barry Point Weather Update #2 Monday, August 13, 2012

The following statement should be transmitted to ALL Divisions on the Incident.  
This copy should be returned to the IMET.

Script to be read: A PYRO-CUMULUS CLOUD IS OVER THE FIRE

STATEMENT

Radar indicates the Pyro-cumulus cloud has now reached 35,000-40,000 feet.  
At this height the cloud could produce lightning as well as gusty and erratic winds.

If you notice sprinkles or a brief lull in the wind be prepared for the potential for gusty erratic winds.

-----  
Prepared by Carl Cerniglia - Incident Meteorologist  
Date: August 13, 2012 Time: 15:50 hours

Announced by: Joey Dustin Carl Cerniglia Incident Dispatcher

At: 1552 hours

Field Units acknowledging the weather update:

Barry Point Weather Update #1 Monday, August 13, 2012

The following statement should be transmitted to ALL Divisions on the Incident.  
This copy should be returned to the IMET.

Script to be read: A PYRO-CUMULUS CLOUD HAS FORMED OVER THE  
SKOKE COLUMN

**STATEMENT**

Satellite and radar data indicates a pyro-cumulus cloud has formed over the main smoke column over Branch 1. Radar indicates that the smoke column has reached at least 30,000 ft.

Pyro-cumulus clouds on top of smoke columns can cause erratic and gusty winds in the vicinity of the main column. If you notice sprinkles or a brief lull in the wind be prepared for the potential for gusty erratic winds.

-----  
Prepared by Carl Cerniglia - Incident Meteorologist  
Date: August 13, 2012 Time: 15:07 hours

Announced by: Beelca Joseph, Carl Cerniglia Incident Dispatcher

At: 1508 hours

Field Units acknowledging the weather update:

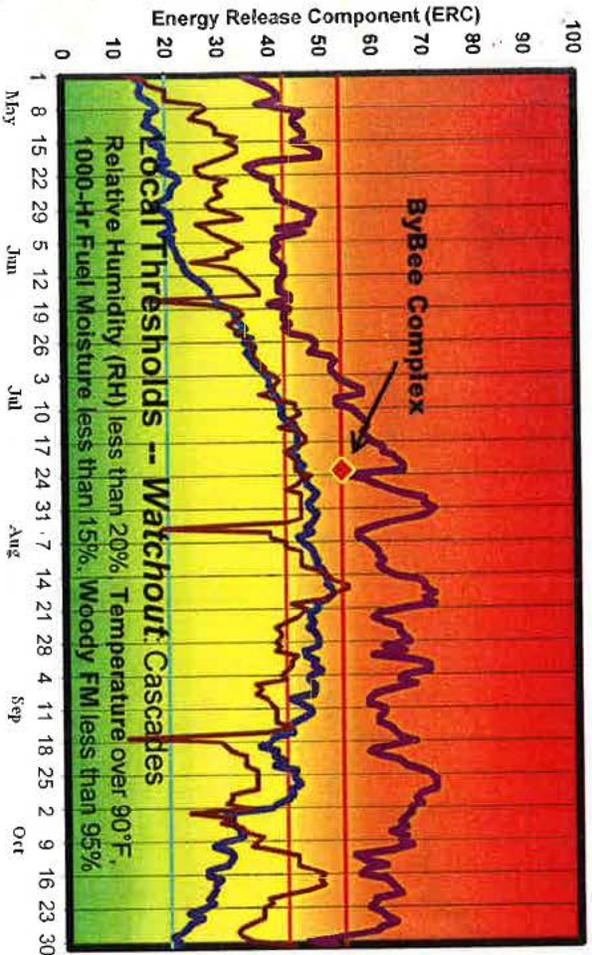
Z, 15

**RED FLAG WARNING**—A term used by fire-weather forecasters to call attention to limited weather conditions of particular importance that may result in extreme burning conditions. It is issued when it is an on-going event or the fire weather forecaster has a high degree of confidence that Red Flag criteria will occur within 24 hours of issuance.

Red Flag criteria occurs whenever a geographical area has been in a dry spell for a week or two, or for a shorter period, if before spring green-up or after fall color, and the National Fire Danger Rating System (NFDRS) is **high to extreme** and the following forecast weather parameters are forecasted to be met: 1) a **sustained wind average 15 mph** or greater, 2) **relative humidity less than or equal to 25 percent**, and 3) a **temperature of greater than 75 degrees F**. In some states, dry lightning and unstable air are criteria. A Fire Weather Watch may be issued prior to the Red Flag Warning.

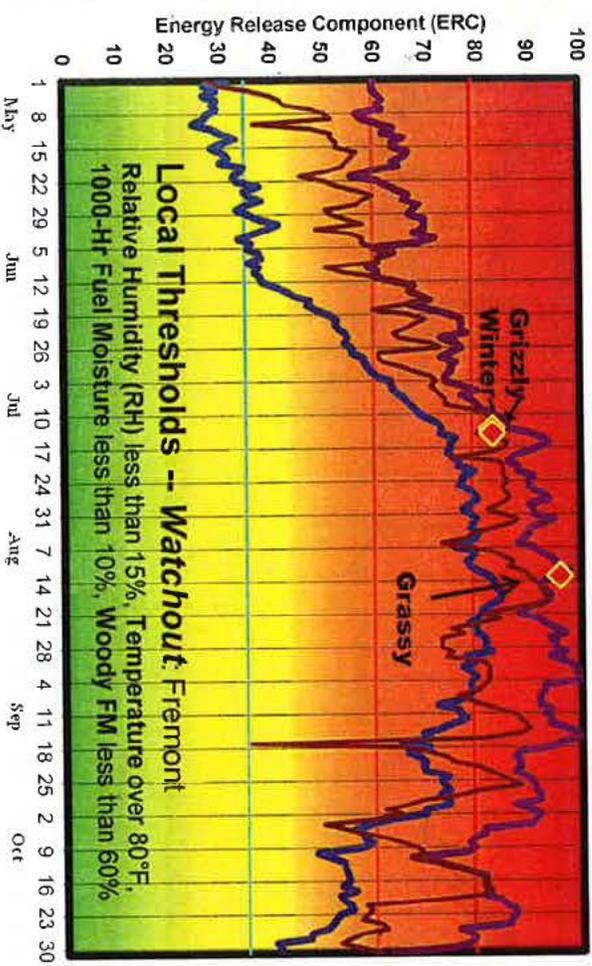
### SCO Fire Danger - Cascades Area

FireFamily Plus, Seldom 353339, Model G, Meets NWCG Wx Station Standard



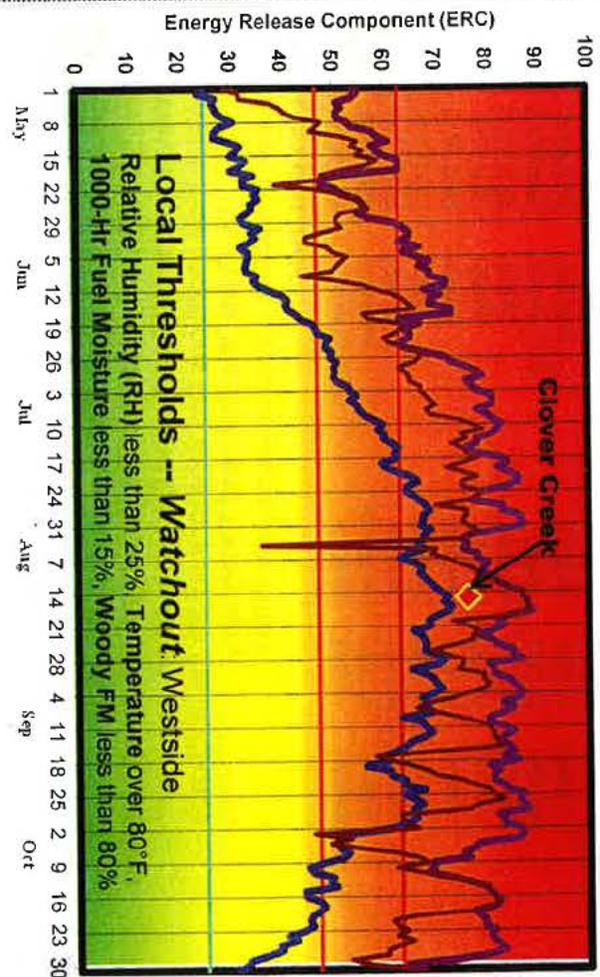
### SCO Fire Danger - Fremont Area

FireFamily Plus, Summit 353421, Model G, Meets NWCG Wx Station Standard



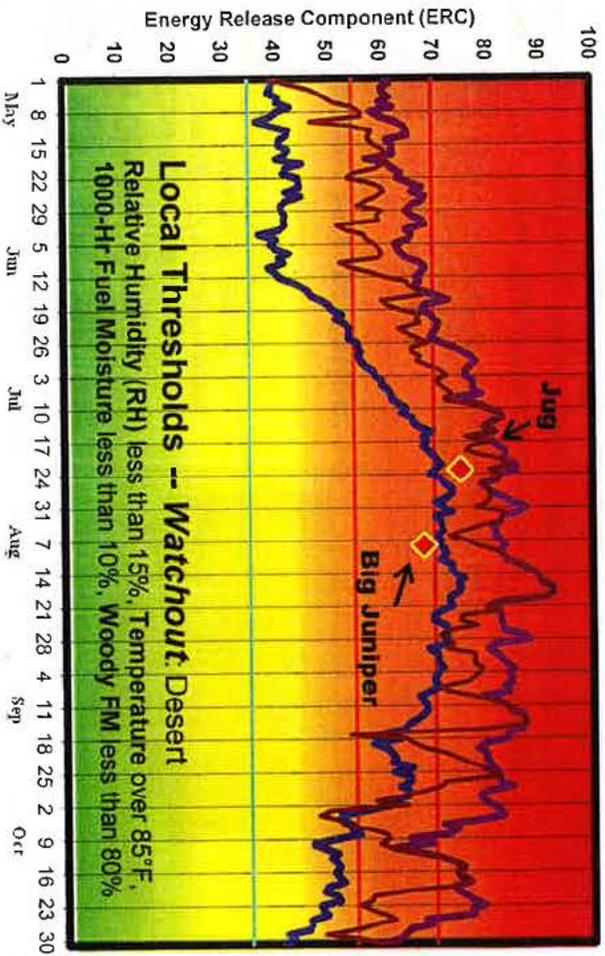
### SCO Fire Danger - Westside Area

FireFamily Plus, Parker\_Mtn 353344, Model G, Meets NWCG Wx Station Standard



### SCO Fire Danger - Desert Area

FireFamily Plus, Ft\_Rock and Rock\_Creek, Model G, Meets NWCG Wx Station Standard





## Memo 2: Barry Point Fire Spread History & Future Growth

Date: August 16, 2012 (0900) v2

Analyst: Rick Stratton (LTAN) (rdstratton@fs.fed.us; (b) (6))

### Purpose

The Barry Point Fire has moved considerable distances in several directions. The purpose of this memo is to (1) document these runs and (2) propose three most likely spread scenarios in the coming days.

### Maximum Spread Distance and Wind Direction

Below is a table by date of maximum spread distance and wind direction. These are rough estimates from MODIS, field intelligence, and infrared imagery.

Date	Est. Max Spread Distance	Spread Direction	Points of Reference
8.6.pm	1 mi	NE	Fire Started (Barry Point)
8.7.am	2 mi	NE	
8.7.pm	3 mi	NE	Fire Jumps Hay Creek; established on base of Dog Mtn.
8.8	2 mi	SE	
8.9 & 8.10	3 mi	SE	Fire makes a run at Drews Reservoir; burns Dog Mtn.
8.11	3.5 mi	SW	
8.12	1 mi	SE	
8.13	5 mi	S	Fire Crosses Pipeline; enters CA
8.14	6 mi	S	
8.15	1 mi	E	Fire breaches Co Rd 73/181

By grouping the wind direction, a range of max spread distances are apparent.

Wind Direction	Spread Range
N/NE	3.5 - 6 mi
NW	1 - 3 mi
SW or W	1 - 3 mi

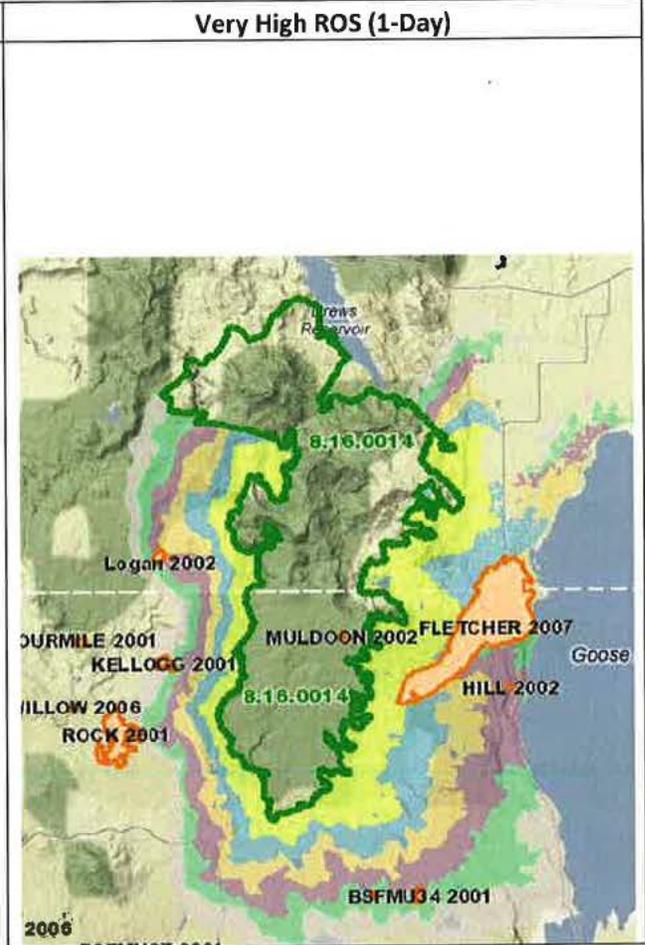
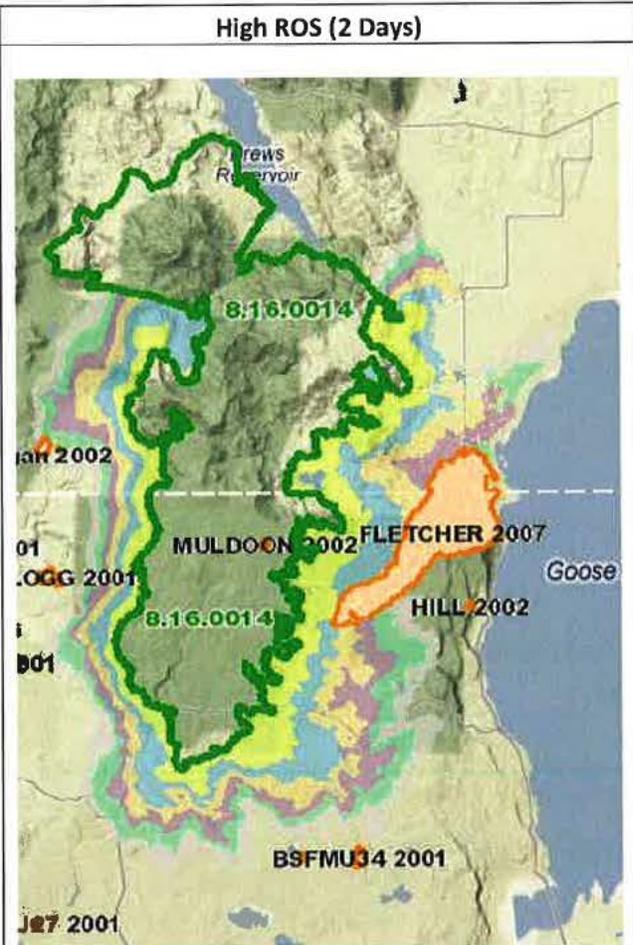
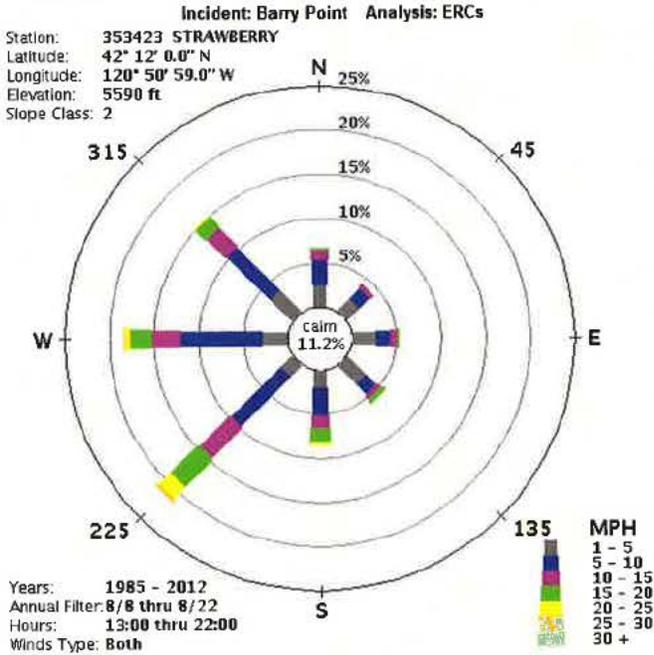
### Scenario 1: Continued Movement to the South

Below are two, 3-day short-term fire behavior (STFB) runs using minimum travel time (MTT). Essentially, MTT is an algorithm that searches for the fastest path of fire spread in all directions; then it creates a FARSITE-looking perimeter from these major flow paths. Each color band represents several hours, with 2 bands equal to one day. Two outcomes are shown (high and very high rate-of-spread [ROS]), both calibrated to observed spread. There is an abrupt fuel change at Fletcher Creek, which will reduce long-range spotting and may reduce the ROS to the south.

High ROS (3 Days)	Very High ROS (3 Days)
	
<p>In 3 days, fire will extend SW of Telephone Reservoir. A potential containment line is the v-shaped roads that tie into Telephone Reservoir (46N12/4601).</p>	<p>In 3 days, expect the fire to be SW of Big Sage Reservoir (circled) and approximately 6 miles from Hwy 299 and 10 miles from Alturas.</p>

**Scenario 2: Movement to the East**

Due to the substantial growth to the south, we now have about 15 miles of active fire perimeter on the east and west flanks. Spread to the east is very likely due to the historical pattern of west-SW winds (see wind rose from Strawberry RAWS). Also, the most recent weather forecast indicates a return to west-SW winds.

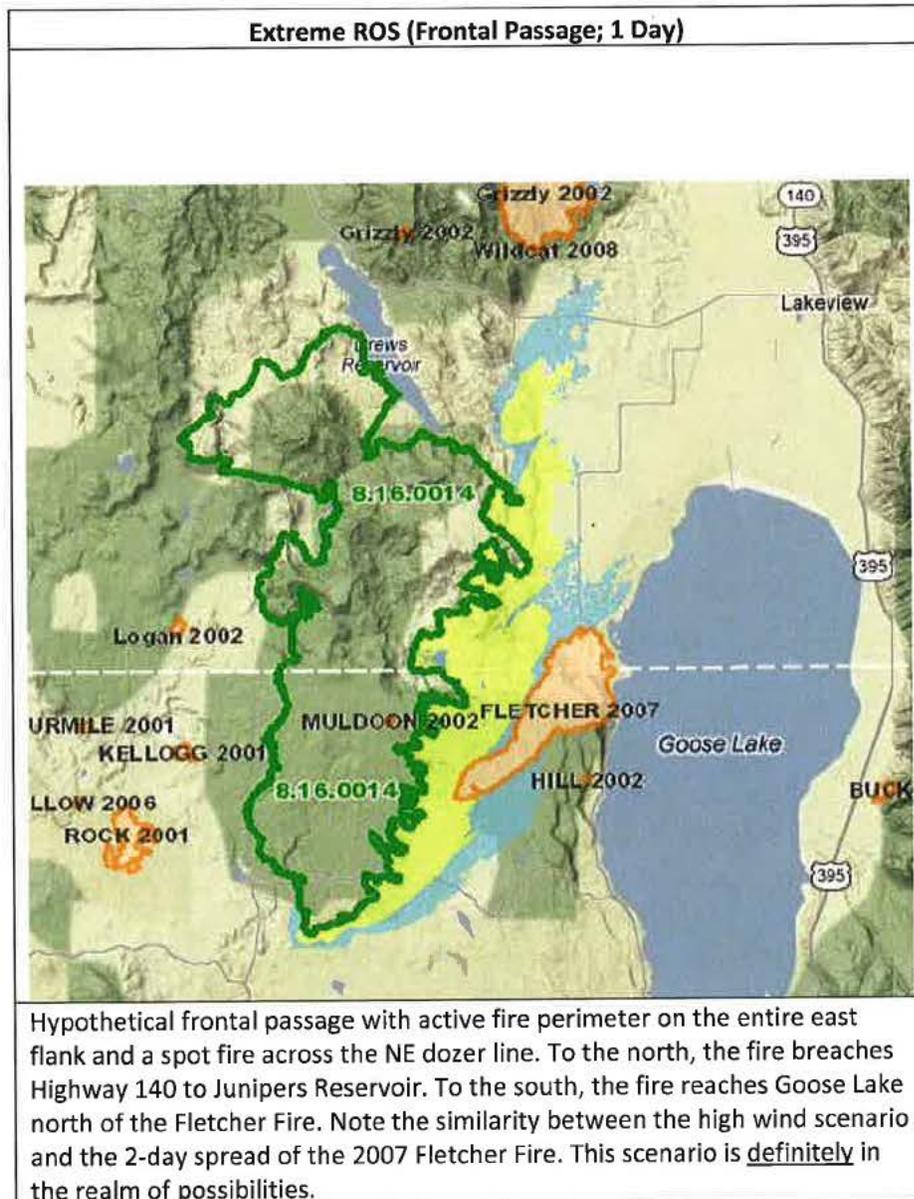


In 2 days, the fire would reach Goose Lake north of the Fletcher Burn and in 3-days it would be 1.5 miles from Goose Lake, south of the Fletcher Fire.

In 1 day, the fire would reach Goose Lake north of the Fletcher Burn and in 2-days the fire would reach the south end of the Fletcher Fire.

### Scenario 3: Extreme Movement Associate with a Frontal Passage

The weather forecast calls for greater instability and the possibility of thunderstorms. To date, the fire has been fuel and fire driven. The prospect of the fire being driven by strong south-SW winds is disconcerting. To show this threat, a hypothetical spot ignition NE of the dozer line, at the south end of Drew's Reservoir, was made as well as an active eastern flank.



Date	Location	Elevation	Aspect				
			Foot	N	E	S	W
8/21/12	Barry Point, Div D south	5207					
Exposure (Ridgetop, slope, etc.)		Cover Type (As indicator of wind obstruction)		Stand Density (As indicator of wind obstruction)			
Flat ground		Panda stand		Moderate			
Time (-ST)	Temperature (Degree F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)	
	Dry	Wet					
0930	67	53	41%	0-2	SW	Sky weather is currently clear & sunny	
1030	75	56	39%	0-2, 4	W	Currently sunny & clear	
1130	76	55	27%	0-2, 4	WSE NW	sky weather currently sunny & clear	
1230	80	57	25%	0-2, 4.5	SW	partly cloudy	
1330	83	52	9%	3-4.7	NW+NW	Partly cloudy & High winds aloft	
1430	80	55	20%	3-4.6	S, SW	partly cloudy	
1930	80	55	20%	2-4.6	NW	Partly cloudy	

Date	Location	Elevation	Aspect				
			Foot	N	E	S	W
8/21/12	Barry Point Div D south	5207					
Exposure (Ridgetop, slope, etc.)		Cover Type (As indicator of wind obstruction)		Stand Density (As indicator of wind obstruction)			
Flat		Panda stand		Moderate			
Time (-ST)	Temperature (Degree F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)	
	Dry	Wet					
1630	82	53	12%	0-2	W	Partly cloudy	
1730	81	52	11%	2-4	N, W, SW	Clear with Bristling winds	

Date	Location	Elevation	Aspect				
			Foot	N	E	S	W
8/21-12	Middle Pump N on Div D	5700					
Exposure (Ridgetop, slope, etc.)		Cover Type (As indicator of wind obstruction)		Stand Density (As indicator of wind obstruction)			
Flat		Broken canopy		40 TO 50%			
Time (-ST)	Temperature (Degree F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)	
	Dry	Wet					
1000	71	54	35	0-2	SE	CLEAR SKY	
1100	77	57	32	0-5	SE	20' 12-5 CLEAR SKY	
1200	80	57	26	2-5	SE	Clear sky 20' 5-10 MPH Gusts 10	
1300	81	57	25			20' 5-10 MPH	
1400	82	54	19	2-5	S and SW	Gusts 5-10 - 15% cloud cover	
1500	82	54	19	2-5	S and W	and occasionally N and E	
1600	82	53	18	2-5	S and SE	Gusts 5 15% cloud	
1700	81	53	18	2-5	S and SW	10% cloud cover	
						Clear	

Date 8-15-12  
 Location DNC  
 Exposure (Ridgetop, slope, etc.)  
 Cover Type (As indicator of wind obstruction)  
 Elevation Feet  
 Aspect N E S W  
 Stand Density (As indicator of wind obstruction)

Time (-ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1415	85	60	18	1-3	E	CALM
1630	86	62	24	1-3	SUD	

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Date 8-16-12  
 Exposure (Ridgetop, slope, etc.)  
 Location T3 on top of RR  
 Cover Type (As indicator of wind obstruction)  
 Elevation Feet  
 Aspect N E S W  
 Stand Density (As indicator of wind obstruction)  
 Wind

Time (-ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1117	84	58	19	3-5	NE	Stable with light wind
1210	85	58	17	3-5	N	with light wind
1410	92	61	14	1-3	N	CALM
1500						
1700						

Date 8-16-12  
 Location Div D  
 Exposure (Ridgetop, slope, etc.)  
 Cover Type (As indicator of wind obstruction)  
 Elevation Feet  
 Aspect N E S W  
 Stand Density (As indicator of wind obstruction)

Time (-ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1117	83	59	22	1-3	E	CALM
1500	90	61	18	2-5	S	Breezy

Date 8-18-12  
 Exposure (Ridge top, slope, etc.) Flat  
 Location Div D  
 Cover Type (As indicator of wind obstruction) Pines  
 Elevation 5100 Feet  
 Aspect N E S W  
 Stand Density (As indicator of wind obstruction) Sparse  
 Wind

Time (Z ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.P.H.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1230	78	56	24	1-3	N	Breezy, Smokeless
1400	81	57	22	2-4	SW	Breezy, CLEAR 20ft calm
1640	94	56	14	2-6	SE	Windy, Clear 20ft 5-10 mph
1600	84	56	14	3-6	SE	Clear, less smoke

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Date 8-17-12  
 Exposure (Ridge top, slope, etc.) Flat  
 Location Div D  
 Cover Type (As indicator of wind obstruction) Pines  
 Elevation 6100 Feet  
 Aspect N E S W  
 Stand Density (As indicator of wind obstruction) Sparse  
 Wind

Time (Z ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.P.H.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1300	80	69	38	1-3	SW	CALM 20ft 5-10ft

GPO U.S. GOVERNMENT PRINTING OFFICE: 2006-547-282

8-9 ASP 4-13  
 Barry Point Fire  
 August 17 Friday  
 Elevation 5072/Edo

11:00	D-850	W-62	RH-280
Wind	calm	SE	0-3 mph
12:00	D-860	W-67	RH-270
Wind	Light	E	0-3 up to 10 mph
13:00	D-92	W-65	RH-27
Wind	Light	E	0-3 up to 10 mph
14:00	D-93	W-65	RH-230
Wind	Light	SE	2-4 up to 10 mph
15:00	D-93	W-64	RH-210
Wind	Light	Variable	2-5
16:00	D-93	W-64	RH-210
Wind	Light	Variable	0-3
17:00	D-92	W-63	RH-200
Wind	Light	Variable	2-4 mph

SW Wenthor (Kestrel) 4/14

1:00  
Dry bulb: 78 Wet bulb: 33  
RH: 19 PIG: 70

Wind  
South Avg. 1.3  
 Gusts: 2.7

N 42° 10.621' Elevation  
W 120° 41.938' 5409 ft.

12:00 DIV N 10X

Dry Bulb: 87 Wet Bulb: 36  
RH: 14 PIG: 90  
- 5

Wind: Avg. 6  
 Gust: 15

13:00  
Dry Bulb: 92 Wet Bulb: 30  
RH: 11 PIG: 90  
Change: -3

Wind: - Avg. 1.3  
 Gust: 3.6

14:00 N 42° 05.510' W 120° 42.316'  
Dry: 96 Wet: 34  
RH: 10 down 1 PIG: 90  
Elevation: 5414  
Wind: Average 1.2 Gust: 1.3

17:00 (number)

Dry: 91 Wet: 28  
RH: 10 PIG: 60

Wind = Avg. 3  
 max: 5  
 Direction: SSW

1800  
Dry: 88 Wet: 30  
RH: 12, 4, 2 PIG: 50  
Wind: average: 1.7 West  
Max: 3.4

1900  
Dry: 91 Wet: 28  
RH: 10 down 2 PIG: 60  
Wind Avg: 2.3 South  
Max Gust: 3.5

FIRE-WEATHER OBSERVATIONS

FOREST \_\_\_\_\_ COUNTY \_\_\_\_\_ FIRE \_\_\_\_\_ DATE \_\_\_\_\_

"As in the Rain"

LOCATION	ELEV.	LOCAL TIME	TEMP.		RH	WIND		REMARKS
			DRY	WET		DIR.	SP.	
Div. M	5120	1420	96	32	14	SW	23	Map #DTI
	5100	1530	90	57	29	W	2	T <sub>2</sub>
	5100	1635	89	51	29	NE	4.6	T <sub>2</sub>
	5100	1835	85	56	30	NW	0	T <sub>2</sub>

AGENCY \_\_\_\_\_ OBSERVER \_\_\_\_\_

Date (- ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1800	85	53	20/19	1-3	NW	5/70 6/60 Clear skies
1900	82	53	25/12	1-3	NW	6/60 7/90

DIV B DP1

Date (- ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Stand Density (As indicator of wind obstruction)	Aspect N E S W
	Dry	Wet					
0930	70	55	40	0-3	SW	30% timber, 0% cloud cover	
1200	80	56	22	3-5	SW	Gust to 15 SW, Elev. 5388, 20% timber, >5% cloud cover	
1300	82	54	15	5-7	SW	Gusts in the 20s on ridge top, 20% timber, 5426 elev. <5% cloud cover, W Aspect	
1400	84	54	12	5-7	SW	Gusts to 15, flat ground, 10% timber, <5% cloud cover	
1500	84	54	12	3-7	SW	Gusts to 12, flat ground, 30% timber, <5% cloud cover, east aspect	
1700	79	54	19	7-12	SW	Gust to 20+ near Horsehold Lake, 40% timber, <5% cloud cover, flat ground	

Date: 8/21/12 Location: DIV F Elevation: Variable Feet Aspect: N E S W  
 Exposure (Ridgetop, slope, etc.): Cover Type (As indicator of wind obstruction): Stand Density (As indicator of wind obstruction):

Time (- ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
0930	70	55	40	0-3	SW	Elev. 5408, 1 mile W DP 151, 30% timber, 0% cloud cover
1200	80	56	22	3-5	SW	Gust to 15 SW, Elev. 5388, 20% timber, >5% cloud cover
1300	82	54	15	5-7	SW	Gusts in the 20s on ridge top, 20% timber, 5426 elev. <5% cloud cover, W Aspect
1400	84	54	12	5-7	SW	Gusts to 15, flat ground, 10% timber, <5% cloud cover
1500	84	54	12	3-7	SW	Gusts to 12, flat ground, 30% timber, <5% cloud cover, east aspect
1700	79	54	19	7-12	SW	Gust to 20+ near Horsehold Lake, 40% timber, <5% cloud cover, flat ground



FOBS (1) - Higgins

Date: 8/20/12 Location: Variable - See Notes Elevation: Feet Aspect: N E S W  
 Exposure (Ridgetop, slope, etc.): Cover Type (As indicator of wind obstruction): Stand Density (As indicator of wind obstruction):

Time (- ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
0900	61	53	61%	2-6	SE	DP-151 0% cloud cover - Flat Grass w the scattered juniper 20% cc
1030	75	56	31%	0-3	SE	SUD 50% DIV L 0% cloud cover. Aspect N Juniper/Rodgers 30% canopy
1200	84	63	33%	0-5	NW	Juniper/Rodgers 55% canopy Elevation 5468 DIV 5 Handline
1300	84	56	16%	0-5	NW	50% canopy Fir/Pine, 0% cloud
1500	88	55	10	0-5	S/SW	5/F Break 0% cloud cover Fir/Pine 20% canopy

MOBILE FIRE WEATHER OBSERVER'S RECORD

Optional Form 251 (12/89) USDA/USDI

Date: 8-20-12 Location: DIV FOXTRAIL Elevation: 5113 Feet Aspect: N E S W

Exposure (Ridgetop, slope, etc.): SOUTHW 1/2 SLOPE Cover Type (As indicator of wind obstruction): MWD to HW TIMBER Stand Density (As indicator of wind obstruction): 60%

Time (- ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1300	82°	62°	35%	1-3	W	(SG) UP to 8 MPH
1400	85°	58°	21%	1-3	W/E	(SG) BATHING UP to 8 MPH
1500	85°	56°	17%	2-4	W	(SG) UP to 7 MPH
1600	86°	57°	17%	2-4	W	(SG) UP TO 7 MPH
1700	85°	56°	17%	2-4	W	(SG) UP TO 8 MPH
1800						

Date: 8/19 Location: Various (see notes) Elevation: Variable Feet Aspect: N E S W

Exposure (Ridgetop, slope, etc.): see notes Cover Type (As indicator of wind obstruction): see notes Stand Density (As indicator of wind obstruction): see notes

Time (- ST)	Temperature (Degrees F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1200	80	63	41	0-3	NW	DIV A Aspect = W Elevation: 5026 Timber (20% cc), 0% clouds (near DPS)
1300	82	61	35	0-3	NW	DIV B Aspect = E. Elevation: 5210 Timber (20% cc), 0% clouds (near DPS)
1400	83	62	35	0-7	NW	DIV A: Handline Aspect: S Elevation: 5193 Menopon/Small trees, 20% cc, 0% cloud
1500	83	55	15	0-5	NW	DIV C - Aspect - SW Elevation: 5862 Timber (40% cc), 0% clouds (4017-1533 feet)
1600	84	53	14	3-9	NW	DIV C - Aspect - E 10% cloud Elevation: 5207 Timber next to meadow (20% cover) (W side Potomac Valley)
1700	85	56	15	3-5	NW	DIV C - DP-200 0% clouds Elevation: 5422 Timber next to meadow (20% cover) aspect: S
1800	81	56	21	0-3	NW	DIV B Aspect NW 0% clouds Elevation: 5354 Timber next to meadow (20% cover) 1 mile SW

Div. Collector Unshaded.

Date	Location	Elevation	Aspect			
8-19	Barry Point Fire	5100 Feet	N E S W			
Exposure (Ridge, slope, etc.)	Cover Type (As indicator of wind obstruction)	Stand Density (As indicator of wind obstruction)				
Slope	Light Timber	Light				
Time	Temperature (Degrees F.)	Relative Humidity (Percent)	Speed (M.P.H.)	Direction (From)	Wind	Characteristics and Comments (See instructions on cover)
(-ST)	Dry					
	Wet					
930 <sup>h</sup>	65	55	0			REM 10 P.T. 6:30%
1000 <sup>N</sup>	67 <sup>u</sup>	56	0			REM 7 P.T. 6:30%
1100	72 <sup>u</sup>	57	0-1	E		REM 8 P.T. 6:40%
1200	77 <sup>u</sup>	58 <sup>u</sup>	0-1	E/W		REM 5 P.T. 6:60%
1300	83 <sup>u</sup>	59 <sup>u</sup>	0-3	E		REM 5 P.T. 6:70%
1400	83	59	0-3	E/W		REM 5 P.T. 6:70%
1500	85 <sup>u</sup>	59	2-3	W		REM 5 P.T. 6:80%

Unshaded.

8-19

Date	Location	Elevation	Aspect			
8-19	Barry Point Fire	5100 Feet	N E S W			
Exposure (Ridge, slope, etc.)	Cover Type (As indicator of wind obstruction)	Stand Density (As indicator of wind obstruction)				
Slope	Light Timber	Light				
Time	Temperature (Degrees F.)	Relative Humidity (Percent)	Speed (M.P.H.)	Direction (From)	Wind	Characteristics and Comments (See instructions on cover)
(-ST)	Dry					
	Wet					
1600	86 <sup>u</sup>	58 <sup>u</sup>	1-3	E/W		REM 2 P.T. 6:80%
1700	85 <sup>u</sup>	55 <sup>u</sup>	0-1	E/W		REM 2 P.T. 6:80%
1800	81 <sup>u</sup>	55	0-3	W		REM 2 P.T. 6:60%
1900	77 <sup>u</sup>	54 <sup>u</sup>	0-1	W		REM 2 P.T. 6:60%

C-9 ASP 4-B  
Barry Point Fire  
Saturday August 18th  
Division Echo  
Elevation 5055

10:00	D-58	W-58	RH-100
wind	calm	variable	0-2 mph
11:00	D-65	W-61	RH-81°
wind	calm	variable	0-3 mph
12:00	D-68	W-62	RH-73
wind	calm	SE	as up to 6 mph
13:00	D-77	W-62	RH-45
wind	calm	SE	0-3 mph up to 6
14:00	D-79	W-62	RH-40
wind	Light	SE	2-4 mph up to 10
15:00	D-82	W-63	RH-37
wind	Light	SE	2-4 mph up to 10

ASP 4-B  
Barry Point Fire / H-21  
Sunday August 19 / H-21  
Elevation 5055 / Echo

11:00	D-75	W-58	RH-37°
wind	calm	SU	less than 2 mph
12:00	D-78	W-60	RH-37°
wind	calm	SW	0-3 mph
13:00	D-82	W-60	RH-29°
wind	Light	SW	2-6 mph
14:00	D-83	W-59	RH-25°
wind	Light	S	2-6 mph
15:00	D-85	W-59	RH-22°
wind	Light	SW	2-6 up to 10
16:00	D-86	W-58	RH-18°
wind	Light	SW	2-6 up to 10

From ZZ 1HC

Date 8-22-12		Location Barry Point Div J N 41° 55' 39" W 120° 37' 39"		Elevation 5,476 Feet	Aspect N E <u>S</u> W	
Exposure (Ridgtop, slope, etc.) Flat / Bench		Cover Type (As indicator of wind obstruction) Pando, Jun, Timber Litter		Stand Density (As indicator of wind obstruction) 40%		
Time (-ST)	Temperature (Degree F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1000	68	53	39%	0-3	N	P1407. DP 42
1100	72	55	35%	0-3	E	P1507. DP 43
1200	75	55	29%	0-3	E	P1607. DP 40
1300	78	55	23%	0-3	E	P1707. DP 37
1400	74	55	21%	0-3/8	very	P1707. DP 36
1500	80	55	20%	0-3/10	very	P1807. DP 35
1600	86	54	17%	1-4/8	very	P1807. DP 32

Date 8-21-12		Location Barry Point W 120° 35' 69"		Elevation 5,886 Feet	Aspect N E <u>S</u> W	
Exposure (Ridgtop, slope, etc.) Slope		Cover Type (As indicator of wind obstruction) Pando, Timber Litter		Stand Density (As indicator of wind obstruction) 40%		
Time (-ST)	Temperature (Degree F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
0920	66	53	44%	0-3	very	P1307. DP 44
1000	68	53	39%	0-3	very	P1407. DP 42
1100	73	55	33%	0-3	very	P1507. DP 42
1200	75	55	29%	1-3	very	P1607. DP 40
1300	79	55	21%	1-4/6	very	P1707. DP 36
1400	80	55	26%	1-4	very	P1707. DP 32
1500	78	54	20%	1-4/6	very	P1707. DP 34

Turn L →

Date 8/23/12		Location DIV J		Elevation 5264 Feet	Aspect N E <u>S</u> W	
Exposure (Ridgtop, slope, etc.) Ridge top		Cover Type (As indicator of wind obstruction) Pando / Jun		Stand Density (As indicator of wind obstruction) Moderate		
Time (-ST)	Temperature (Degree F.)		Relative Humidity (Percent)	Speed (M.p.h.)	Direction (From)	Characteristics and Comments (See instructions on cover)
	Dry	Wet				
1030	73		35	1-3	SW	Handline - top above Oasis
1100	75	56	31	1-3	W	" "
1230	82		16	2-4	W	" "
1330	83	55	15	2-4	W	" "
1430	81	56	21	5-7	NW	" "
1530	83	57	20	2-4	NW	" "
1630	84	56	16	2-5	NW	" "
1730	81		15	4-6	W	" "

FIRE - WEATHER INFORMATION

Date Time	Location	Elev.	Wind		Temp.			RH	Remarks	By
			Sp	Dir	Dry	Wet	DP			
9-22 1100	mid slope Div J	5300	5-12	N/E	Var	69	55	43	shifting winds	MT
9-22 1200	Portatank	"	calm	N/E	Var	74	55	31		
1300	Ridge top		calm		Var	76	56	29		
1400	Ridge line w of Portatank		calm		Var	80	56	22		
1500	Ridge line w of Portatank		1-2		Var	80	55	20	smoke lifting	
1600	"	"			Var	81	54	18	clear sky	
1800	"	"	Light	NE		79	53	16		
			0-3							

Forestry Suppliers, Inc. Stock No 89294

8-15-2012

Div E Near  
Break w/ Div B

10:30 - RH: 33 Temp: 70  
 11:00 - RH: 35 Temp: 75  
 1130 - RH: 40 Temp: 79  
 1200 - RH: 20 Temp: 80  
 1230 - RH: 19 Temp: 82  
 1:00 - RH: 14 Temp: 80  
 1:30 - RH: 15 Temp: 82  
 2:00 - RH: 10 Temp: 90  
 2:30 - RH: 11 Temp: 91  
 3:00 - RH: 10 Temp: 93  
 330 - RH: 14 Temp: 86  
 430 - RH: 13 Temp: 80  
 500 - RH: 12 Temp: 80  
 530 - RH: 15 Temp: 87

