North Fork Fire – Weather Data
March 26, 2012

The data from the five functioning Remote Automatic Weather Stations (RAWS) nearest the Lower North Fork Fire point of origin was gathered and a summary is contained below:

A) The Bailey RAWS is located at 7,982 feet in elevation and approximately 7.5 miles SW of the point of origin of the Lower North Fork Fire.

Station Name	Obs_Date	Obs_HH	Obs_MM	Dry_Tmp	RH	Wind_Dir	Wind_Sp	Hrly_Prcp	Fuel_Temp	Peak Wind Speed	Peak Wind Dir
BAILEY	26-Mar-12	16	22	61	8	244	7	0	60	20	237
BAILEY	26-Mar-12	15	22	63	7	240	8	0	72	18	284
BAILEY	26-Mar-12	14	22	63	6	242	10	0	74	19	235
BAILEY	26-Mar-12	13	22	65	5	238	8	0	79	17	252
BAILEY	26-Mar-12	12	22	66	6	230	6	0	80	19	188
BAILEY	26-Mar-12	11	22	64	9	222	6	0	80	16	189
BAILEY	26-Mar-12	10	22	59	12	217	5	0	63	14	213
BAILEY	26-Mar-12	9	22	59	14	220	6	0	63	13	244

In summary, the air temperatures recorded at the Bailey RAWS between 9:00 AM and 4:00 PM on the day of the fire escape were between 59° - 65° (F), the winds were out of the SW (217°-244°) between five and ten miles per hour, with gusts between 13 and 20 miles per hour. The wind gusts ranged from out of the S to out of the WNW (188° to 284°).

B) The Polhemus RAWS is located at 8,683 feet in elevation and approximately 13.25 miles SSE of the point of origin of the Lower North Fork Fire.

Station Name	Obs_Date	Obs_HH	Obs_MM	Dry_Tmp	RH	Wind_Dir	Wind_Sp	Hrly_Prcp	Fuel_Temp	Peak Wind Speed	Peak Wind Dir
POLHEMUS	26-Mar-12	15	54	59	5	242	23	0	64	57	286
POLHEMUS	26-Mar-12	14	54	62	5	245	27	0	70	55	235
POLHEMUS	26-Mar-12	13	54	63	4	247	26	0	73	47	236
POLHEMUS	26-Mar-12	12	54	62	5	240	21	0	75	50	211
POLHEMUS	26-Mar-12	11	54	59	9	232	23	0	69	49	233
POLHEMUS	26-Mar-12	10	54	54	17	237	16	0	55	36	209
POLHEMUS	26-Mar-12	9	54	54	22	219	11	0	56	25	236

In summary, the air temperatures recorded at the Polhemus RAWS between 9:00 AM and 4:00 PM on the day of the fire escape were between 52° - 63° (F), the winds were out of the SW (219°-245°) between 11 and 26 miles per hour, with gusts between 25 and 57 miles per hour. The wind gusts ranged from out of the SW to out of the WNW (209° to 286°).

C) The Cheesman RAWS is located at 7,546 feet in elevation and is approximately 17 miles SSW of the point of origin of the Lower North Fork Fire.

Station Name	Obs_Date	Obs_HH	Obs_MM	Dry_Tmp	RH	Wind_Dir	Wind_Sp	Hrly_Prcp	Fuel_Temp	Peak Wind Speed	Peak Wind Dir
CHEESMAN	26-Mar-12	16	23	63	7	219	17	0	66	34	22
CHEESMAN	26-Mar-12	15	23	64	6	219	21	0	68	33	244
CHEESMAN	26-Mar-12	14	23	65	6	228	23	0	69	38	233
CHEESMAN	26-Mar-12	13	23	66	5	214	20	0	71	34	218
CHEESMAN	26-Mar-12	12	23	66	6	198	17	0	71	27	230
CHEESMAN	26-Mar-12	11	23	64	9	210	17	0	69	25	215
CHEESMAN	26-Mar-12	10	23	60	18	187	12	0	60	18	213
CHEESMAN	26-Mar-12	9	23	59	17	212	13	0	60	20	212

In summary, the air temperatures recorded at the Cheesman RAWS between 9:00 AM and 4:00 PM on the day of the fire escape were between 59° - 66° (F), the winds were out of the SSW (187°-228°) between 12 and 23 miles per hour, with gusts between 18 and 38 miles per hour. The wind gusts were out of the SW (212° to 244°).

D) The Corral Creek RAWS is located at 8,081 feet in elevation and is approximately 20 miles NW of the point of origin of the Lower North Fork Fire.

Station Name	Obs_Date	Obs_HH	Obs_MM	Dry_Tmp	RH	Wind_Dir	Wind_Sp	Hrly_Prcp	Fuel_Temp	Peak Wind Speed	Peak Wind Dir
CORRAL CREEK	26-Mar-12	16	58	59	8	208	12	0		37	1
CORRAL CREEK	26-Mar-12	15	58	61	7	283	14	0		38	284
CORRAL CREEK	26-Mar-12	14	58	62	6	252	15	0		47	321
CORRAL CREEK	26-Mar-12	13	58	62	6	281	20	0		48	266
CORRAL CREEK	26-Mar-12	12	58	64	5	327	17	0		42	139
CORRAL CREEK	26-Mar-12	11	58	63	6	167	13	0		42	145
CORRAL CREEK	26-Mar-12	10	58	60	9	198	14	0		37	170
CORRAL CREEK	26-Mar-12	9	58	57	14	169	11	0		31	124

In summary, the air temperatures recorded at the Corral Creek RAWS between 9:00 AM and 4:00 PM on the day of the fire escape were between 57° - 64° (F), the winds ranged from out of the S, SSW, WNW, to NNW (167°-327°) between 11 and 20 miles per hour, with gusts between 31 and 48 miles per hour. The wind gusts ranged from out of the ESE to out of the NW (139° to 321°).

E) The Lookout Mountain RAWS is located at 7,504 feet in elevation and is approximately 21 miles N of the point of origin of the Lower North Fork Fire.

Station Name	Obs_Date	Obs_HH	Obs_MM	Dry_Tmp	RH	Wind_Dir	Wind_Sp	Hrly_Prcp	Fuel_Temp	Peak Wind Speed	Peak Wind Dir
LOOKOUT MTN	26-Mar-12	16	10	63	6	232	19	0	67	42	220
LOOKOUT MTN	26-Mar-12	15	10	65	5	230	19	0	70	51	205
LOOKOUT MTN	26-Mar-12	14	10	65	5	224	26	0	71	50	235
LOOKOUT MTN	26-Mar-12	13	10	66	4	212	24	0	74	47	199
LOOKOUT MTN	26-Mar-12	12	10	65	6	208	18	0	75	37	207
LOOKOUT MTN	26-Mar-12	11	10	64	10	211	12	0	72	31	226
LOOKOUT MTN	26-Mar-12	10	10	61	11	210	16	0	64	36	223
LOOKOUT MTN	26-Mar-12	9	10	60	12	212	19	0	61	37	198

In summary, the air temperatures recorded at the Lookout Mountain RAWS between 9:00 AM and 4:00 PM on the day of the fire escape were between 60° - 66° (F), the winds were out of the SW (210°-232°) between 12 and 26 miles per hour, with gusts between 31 and 51 miles per hour. The wind gusts ranged from out of the SW to out of the SSW (198° to 235°).

Finally, the North Fork Fire Protection District Chief Curt Rogers gathered information regarding on-scene weather near the time of the fire escape. Rogers reported that at approximately 1430-1445, a member of one of his engine crews reported that on the top of the ridge the winds were sustained out of the SW at 50 mph. In addition, North Fork Fire Protection District firefighter John Graves, using a Skymaster FM28 observed that at 1501 hours on March 26, 2012 at the Reynolds Ranch main parking lot the temperature was 68° and the relative humidity was 13%. Then at the porta tank at 1701 hours the winds were out of the SW at 22 mph, gusting to 32 mph. At 1910 hours at the Reynolds Ranch main buildings the temperature was 61° and the relative humidity was 10%.

The National Weather Service showed the following forecast for Monday, March 26, 2012:

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SOUTHWEST WINDS WILL BE GUSTY MONDAY WITH GUSTS IN THE 40 TO 50 MPH RANGE.
COLD FRONT WILL PUSH THROUGH LATE IN THE AFTERNOON. WINDS WILL SHIFT WILL
WESTERLY BEHIND THE FRONT. LOOKS LIKE WINDS WILL STAY BELOW HIGH WIND
CRITERIA...HOWEVER CAN NOT RULE OUT A FEW GUSTS TO 60 MPH BEHIND THE FRONT.
TEMPERATURES WILL BE WARM ACROSS NORTHEAST COLORADO WITH THE FAR EASTERN
PLAINS CLIMBING ABOVE 80 DEGREES.

ALREADY ISSUED A RED FLAG WARNING FOR MONDAY. FIRE DANGER WILL BE VERY HIGH
TO EXTREME MONDAY DUE TO THE STRONG WINDS...DRY FUELS AND LOW RELATIVE
HUMIDITIES.
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AREA FORECAST DISCUSSION
NATIONAL WEATHER SERVICE DENVER/BOULDER CO
440 AM MDT MON MAR 26 2012

.SHORT TERM...VIGOROUS UPPER TROUGH WILL LIFT NORTHWARD ACROSS NEVADA INTO THE NORTHERN ROCKIES BY TONIGHT. BOTH PRESSURE FALL/RISE COUPLET AND OROGRAPHIC PRESSURE FALLS WILL BE FOCUSED NORTH OF US IN WYOMING. COLD ADVECTION ALOFT STAYS NORTH OF US...WITH SOME LOW LEVEL COOLING INTO THE MOUNTAINS BUT STRUGGLING TO GET TOO FAR OUT ONTO THE PLAINS. WITH THE SW FLOW ALOFT AND SURFACE PRESSURE TRENDS HAVING A BIT OF EASTERLY COMPONENT AS WELL AS THE LACK OF STRONG COLD ADVECTION...NOT QUITE THE IDEAL SETUP FOR HIGH WINDS ACROSS OUR AREA. STILL...THERE IS QUITE A BIT OF WIND AND WE WILL BE WELL MIXED. AREAS FAVORED BY THE SOUTHWEST FLOW SHOULD BE THE HARDEST HIT...FROM THE FOOTHILLS SW OF DENVER ACROSS DOUGLAS AND ELBERT COUNTIES AND IN LARIMER COUNTY NEAR THE WYOMING BORDER. IT DOES STILL LOOK LIKE THERE WILL BE A COUPLE OF HOURS IN THE LATE AFTERNOON WITH UNIDIRECTIONAL SOUTHWEST FLOW AND THESE AREAS COULD APPROACH HIGH WIND CRITERIA THEN.

THE MAIN CHANGES I MADE THIS MORNING WERE TO SLOW THINGS DOWN BY A COUPLE OF HOURS. NOT ENOUGH CONFIDENCE TO ADJUST THE TIMING OF THE RED FLAG WARNING HOWEVER...AS THE CHANGE WILL BE PRETTY ABRUPT WHEN THE DRIER AIR DOES MOVE ACROSS THE PLAINS. TEMPERATURES AGAIN LOOK TOO WARM ON THE NORTHEAST PLAINS BUT HESITANT TO CHANGE TOO MUCH AS THE CURRENT AIR MASS WILL BE THOROUGHLY FLUSHED OUT THIS AFTERNOON. NOTHING IN THE WAY OF MID LEVEL MOISTURE AHEAD OF THE TROUGH...

/s/ Brenda J. Schultz

Brenda J. Schultz
U.S. Forest Service
Special Agent/Wildland Fire Investigator

Lookout Mtn RAWS
Corral Creek RAWS
Point of origin
39 25 52.4 -105 12 49
Bailey RAWS
Polhemus RAWS
Cheesman RAWS
Google earth
Image © 2012 TerraMetrics
39°23'01.81" N 105°08'47.18" W elev 7227 ft
Eye alt 67.39 mi