

This is the electronic version of the Annual Fire Weather Report. It contains the essential information as required by National Weather Service Directive 10-404. (*scott weishaar*)

Table one shows the lightning frequency, by area, for the 2014 season.

**TABLE 1 - 2014 LIGHTNING DATA
(MAY THROUGH OCTOBER)**

AREA	# LIGHTNING DAYS 2014	AVE. # DAYS (LAST 19 YEARS)	PERCENT AVE.
ZONES 601/612	4	6.42	62.3%
ZONES 602/603	7	7.74	90.4%
ZONE 604	6	8.52**	70.4%
ZONES 605/607/660	12	12.26	97.9%
ZONES 606/608	12	13.95	86.0%

** Average over 21-year period.

DATA OBTAINED FROM BLM LIGHTNING DETECTION AND NORTHWEST COORDINATION CENTER

GOVERNMENT CAMP SNOW DEPTH: The 2013-14 North Oregon Cascade snowfall was extremely poor from November 2013 through January 2014. The snow depth was a mere six inches on December 14th, and then dwindled to zero by the 21st. The first double-digit snow depth reading occurred on January 12th, 2014, when 14 inches was measured. However, the snow depth returned to zero on January 24th. A series of February storms increased the snow depth to a seasonal maximum of 45 inches on February 21st. The snow depth dropped to 28 inches by the end of February, and then to 6 inches by the end of March. The six inches melted away by April 8th, but a late-month snowfall increased the snow depth to 12 inches on the 28th. On April 29th the snow depth fell to zero for good. Typically, snow cover persists through at least the end of May. The largest single-day jump was 11 inches on January 12th.

GOVERNMENT CAMP PRECIPITATION: For the months November 2013 through May 2014 Government Camp experienced below-normal precipitation November through January, above-normal totals February through April and close to average precipitation in May. The overall total was 5.56 inches above normal.

RED FLAG WARNING STATISTICS FOR 2014

Table two shows the Red Flag verification statistics for the 2014 fire season.

TABLE 2 (ALL WARNINGS)

ZONE	# RFW	CORRECT RFW (A)	INCORRECT RFW (B)	MISSED EVENTS (C)	POD A/(A+C)	CSI A/(A+B+C)	FAR (1- [A/(A+B)])
601	2	1	1	0	1.000	0.500	0.500
612	2	1	1	0	1.000	0.500	0.500
602	3	3	0	0	1.000	1.000	0.000
603	3	3	0	0	1.000	1.000	0.000
604	3	3	0	0	1.000	1.000	0.000
605	3	3	0	0	1.000	1.000	0.000
606	4	4	0	0	1.000	1.000	0.000
607	3	3	0	0	1.000	1.000	0.000
608	4	4	0	0	1.000	1.000	0.000
660	2	2	0	0	1.000	1.000	0.000
TOTALS (ALL)	29	27	2	0	1.000	0.931	0.069
LIGHTNING	2	2	0	0	1.000	1.000	0.000
WIND/RH	16	16	0	0	1.000	1.000	0.000
HAINES 6	11	9	2	0	1.000	0.818	0.172

NUMBER OF WARNED EVENTS: 4

EVENTS PRECEDED BY A WATCH: 2 OR 50%*

MISSED EVENTS: 0

INCORRECT EVENTS: 0

NOTE: Refer to the Annual Operating Plan for complete Red Flag criteria.

*WATCHES – A watch was issued for zones 606 and 608 for the August 10-12 event. Watch WAS NOT issued for the remaining zones. The watch lead times for zones 606 and 608 are included in the overall average watch lead time.

Statistics DO NOT include a rare January Red Flag event issued for wind and RH. This warning was issued in response to previously dormant slash burns re-igniting and then fanned by strong wind.

Two of the four events lasted for 3-4 days and covered multiple causes. These instances were counted as ONE event, since there was no intervening ending statement going from one cause to the next. Warning category (lightning, wind/RH, or Dry and Unstable) was assigned by the initial warning cause.

EVENT LEAD TIMES

Tables 3 and 4 show the respective warning and watch lead times for all events in 2014.

TABLE 3 – WARNING LEAD TIMES

EVENT	RANGE OF LEAD TIMES	AVE. ZONE LEAD TIME
<i>August 10 (Lightning)</i>	27 hrs 41 min ZONE 606 26 hrs 11 min ZONE 608	26 HRS 56 MINS
<i>August 10-12 (Haines 6 then Lightning)</i>	3 hrs 07 min ZONE 602 24hrs 07 min ZONE 603 27 hrs 07 min ZONE 604 23 hrs 07 min ZONE 605 27 hrs 07 min ZONE 606 7 hrs 07 min ZONE 607 24 hrs 07 min ZONE 608 7 hrs 07 min ZONE 660 Did Not Verify Zone 601 Did Not Verify Zone 612	17 HRS 52 MINS
<i>September 4-6 (Wind/RH then Haines 6)</i>	38 hrs 16 min ZONE 601 49 hrs 16 min ZONE 602 26 hrs 44 min ZONE 603 24 hrs 44 min ZONE 604 30 hrs 44 min ZONE 605 29 hrs 44 min ZONE 606 30 hrs 44 min ZONE 607 22 hrs 44 min ZONE 608 26 hrs 44 min ZONE 612	31 HRS 04 MINS
<i>September 11-14 (Wind/RH then Haines 6)</i>	28 hrs 48 min ZONE 602 26 hrs 48 min ZONE 603 24 hrs 48 min ZONE 604 25 hrs 48 min ZONE 605 25 hrs 48 min ZONE 606 31 hrs 48 min ZONE 607 26 hrs 48 min ZONE 608 13 hrs 40 min ZONE 660 (Haines 6)	22 HRS 19 MINS
OVERALL AVE. LEAD TIME		25 HRS 13 MINS

TABLE 4 – WATCH LEAD TIMES

EVENT	RANGE OF LEAD TIMES	AVE. ZONE LEAD TIME
<i>August 10 (Lightning)</i>	51 hrs 55 min ZONE 606 50 hrs 25 min ZONE 608	51 HRS 10 MIN
<i>August 10-12 (Haines 6 then Lightning)</i>	NO WATCH ISSUED	Not Applicable
<i>September 4-6 (Wind/RH then Haines 6)</i>	NO WATCH ISSUED	Not Applicable
<i>September 11-14 (Wind/RH then Haines 6)</i>	48 hrs 07 min ZONE 602 46 hrs 07 min ZONE 603 44 hrs 07 min ZONE 604 45 hrs 07 min ZONE 605 45 hrs 07 min ZONE 606 51 hrs 07 min ZONE 607 46 hrs 07 min ZONE 608 NO WATCH ISSUED ZONE 660	46 HRS 33 MIN
OVERALL AVE. LEAD TIME		47 HRS 35 MINS

September 11-14 Event: A Watch was issued September 9th at 1353 PDT for all zones except 601, 612, and 660. At 1452 PDT on September 11th, warnings were extended into September 14th for thermal trough passage, instead of the original wind/RH cause. Although it was determined on the 11th that fuel conditions in zone 660 did not meet critical or Red Flag criteria, fuels reached the necessary Red Flag requirement by the 13th. Thus, a new warning was issued for zone 660.

Rare Off-Season Red Flag Event: An extended dry period in mid to late January, coupled with offshore flow that persisted for a few days, resulted in a several wildfires in the North Oregon Coast Range. These incidents occurred January 22-24, and started as prescribed burn projects several days prior. The persistent offshore flow and resultant drying conditions re-ignited these previous prescribed burn projects, creating several wildfires. This event was not included in the seasonal Red Flag verification statistics.

NFDRS VERIFICATION

The Portland office switched to all-points NFDRS forecast in 2009, instead of zone trend forecasts. It was shown by neighboring forecast offices that individual point forecasts yielded higher verification scores versus zone trend forecasts. In the past, the Portland office provided individual NFDRS forecasts for eight sites: Village Creek, Pebble, Fields, South Fork, Wanderer’s Peak, Horse Creek, Yellowstone, and Canyon Creek. Table five (below) shows the 2014 NFDRS verification statistics for the above listed sites. The values in red indicate improvement over the 2013 scores.

TABLE 5 – 2014 SITE-SPECIFIC NFDRS VERIFICATION

SITE	TEMPERATURE			HUMIDITY			WIND		
	FCST MAE	PERS. MAE	SCORE	FCST MAE	PERS. MAE	SCORE	FCST MAE	PERS. MAE	SCORE
<i>Village Creek</i>	3.86	6.45	40.16%	9.05	13.95	35.13%	1.14	1.13	-0.88%
<i>Pebble</i>	3.61	6.85	47.30%	10.29	16.78	38.68%	1.46	1.53	4.58%
<i>Fields</i>	3.90	6.71	41.88%	11.60	17.14	32.32%	1.90	1.83	-3.83%
<i>South Fork</i>	3.52	6.33	44.39%	9.54	15.13	36.95%	1.31	1.54	14.94%
<i>Wanderer’s Peak</i>	3.63	6.81	46.70%	9.28	14.88	37.63%	1.37	1.73	20.81%
<i>Horse Creek</i>	3.38	6.49	47.92%	7.97	14.82	46.22%	0.91	0.95	4.21%
<i>Yellowstone</i>	4.30	7.62	43.57%	9.58	16.40	41.59%	1.46	1.55	6.16%
<i>Canyon Creek</i>	5.59	8.49	34.16%	9.08	15.67	42.05%	1.39	1.54	9.74%

Table six shows the 2014 NFDRS verification statistics, by area, and by zone. Improvement in temperature, RH and wind are shown in blue. Red values indicate lower scores.

TABLE 6 – 2014 NFDRS VERIFICATION

ZONE	TEMPERATURE	HUMIDITY	WIND
601	33.63%	32.14%	7.39%
602	42.06%	34.99%	12.11%
603	36.09%	30.22%	11.11%
604	35.57%	25.84%	8.04%
605	46.48%	42.85%	11.32%
606	41.22%	38.86%	15.34%
607	44.22%	38.32%	11.56%

608	42.54%	36.91%	0.00%
612	28.13%	33.97%	12.83%
660	40.40%	34.29%	16.29%
ALL	39.43%	34.64%	10.66%
2013 ALL	32.92%	31.07%	1.00%
2012 ALL	36.2%	30.2%	-2.2%
2011 ALL	37.4%	32.2%	7.5%
2010 ALL	38.5%	28.1%	5.5%
2009 ALL	40.5%	33.7%	4.0%

FORECASTS AND SERVICES

SPOT FORECASTS

Spot forecast requests in 2014 were up 30 percent compared to last year. There were 199 spot requests through early December 2014, compared to 153 last year. The number of wildfire spots surpassed the prescribed burn total. There were 96 wildfire spots and 91 prescribed burn requests. The last time wildfire requests eclipsed prescribed requests was in 2009. The 199 total spots were the most since 2011, when there were 221 requests. There was even one wildfire spot request in November. This occurred on November 19th for a grass fire on the Long Beach, WA peninsula. The Portland office provided seven wildfire spot forecasts in January for an extremely rare winter Red Flag episode in the Oregon Coast Range. Prescribed fire spot request distribution was concentrated in two periods. Spring burning, May through June, accounted for 27 prescribed requests, while late-summer and early fall burning, September through October, totaled 45 requests. Nearly 45 percent of the spot total took place in September and October. November activity was primarily pile burning, with the exception of the one wildfire spot and three Search and Rescue (SAR) requests. The US Fish and Wildlife continued to be quite active in prescribed fall burning.

The use of spot forecasts continues to become more diverse. There were a handful of requests for search-and-rescue missions, training exercises by local fire departments, public safety, and HAZMAT. There were two spot requests for annual early-spring spray activities. Figure 1 (next page) shows the 2014 spot breakdown by month.

The Willamette National Forest has always been one of the primary users of the spot forecast program. The forest accounted for 64 of the 116 Forest Service spot forecast requests. The Mt. Hood National Forest remained a primary participant, with 29 spot requests, all of which were for wildfires. The US Forest Service accounted for about 58 percent all spot requests. Typically, the Forest Service provides for nearly 50 percent of all spot requests. The US Fish and Wildlife Service continued to utilize the spot program for its prescribed burn activities. The USFWS submitted 28 requests, with one wildfire request. This total was nearly equal to last year. Other agencies that were prominent in the spot forecast program included the Oregon Department of

Forestry (ODF), local fire departments, and county sheriff departments. County Sheriff departments are becoming more familiar with the spot forecast program. The sheriff departments submitted six spot requests. Even the Nature Conservancy got in to the act with four spot requests.

The most active spot months were September and October, as mentioned above. June and July accounted for another 42 spot requests. Wildfire requests typically start to increase in July and reach a peak in August. The 2014 prime fire season started on time, but extended well into October. This is a few weeks longer than usual. The 2014 fire season was most noted for the abundance of fire activity on the Middle Fork District of the Willamette National Forest. The 6,033 acre Deception Complex was one of the largest fires ever on the Middle Fork District. The lightning-caused fire started on August 11th, in the midst of many other lightning fires that started in late-July. There were 68 wildfire spots on federal land, and 27 on state-protected areas.

Figure 1 - 2014 SPOT FORECASTS (BY MONTH)

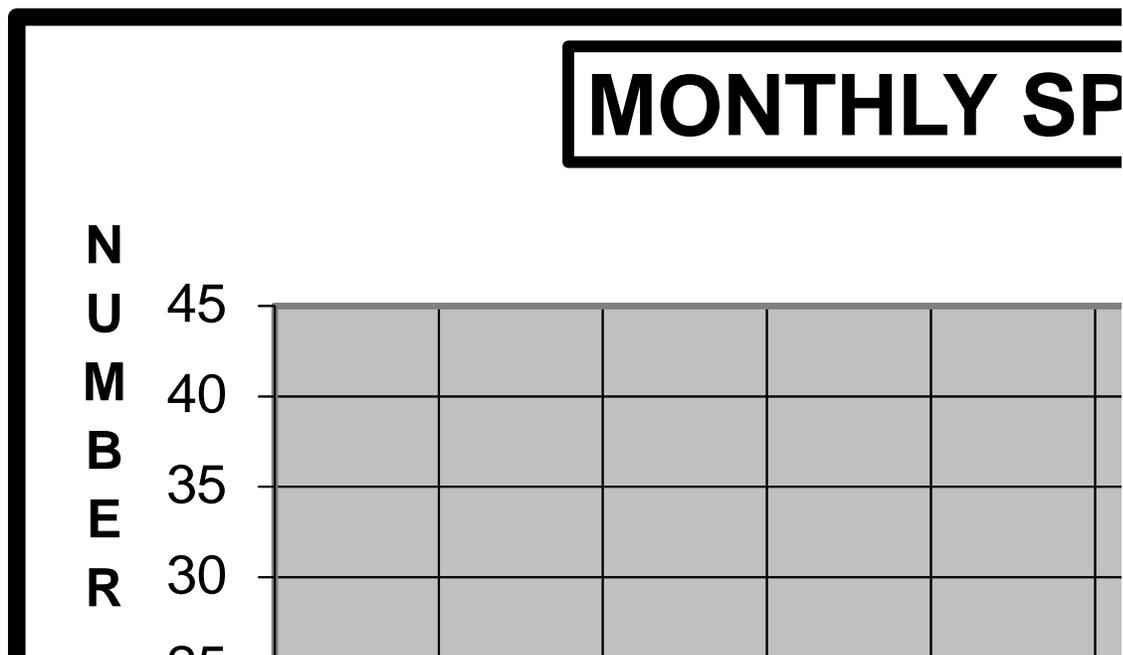


Table 7 (next page) shows the annual spot forecast data from 1995 to 2014. The spot frequency showed a dramatic increase from 2000 to 2003, but due to the change in forecast area responsibility and agency requirements for prescribed burns, 2004 spot totals were much lower. Also, some units/districts curtailed prescribed burn activities starting in 2004 due to budget constraints, staffing concerns, or a number of other reasons. The number of prescribed burn spot requests this year was lower than last year.

Seasonal spot totals exhibited a consistent trend from 2008 to 2010, with an average of about 125 spots per season. The 2011 spot season was the busiest since the 2003 transfer of fire weather zones 609, 610, and 611 to the Pendleton office. The 2013 spot tally was a little unusual due to the low number of wildfire spots, but 2014 more than made up for the previous year's low number. There seemed to be an overlap late in the season as large fires were winding down, yet

opening the door for optimum prescribed burning conditions. This was especially true for the US Fish and Wildlife agency, specifically in the Central and South Willamette Valley.

TABLE 7 – ANNUAL SPOT FORECAST DATA

YEAR	PROJECT*	WILDFIRE	TOTAL
1995	104	15	119
1996	64	51	115
1997	58	9	67
1998	52	31	83
1999	58	54	112
2000	89	20	109
2001	125	70	195
2002	123	147	270
2003	117	132	249
2004	71	21	92
2005	55	29	84
2006	120	96	216
2007	70	25	95
2008	61	73	134
2009	57	58	115
2010	69	51	120
2011	128	93	221
2012	106	51	157
2013	128	25	153
2014	103	96	199

** = INCLUDES TRAINING SPOTS, SEARCH AND RESCUE, AND OTHER MISC. REQUESTS.*

First prescribed spot request: Jan. 7, 2014 Collins Pile Burn Col. Gorge Scenic Area
 Last prescribed spot request: Nov. 19, 2014 Cannery Hill USFWS

First wildfire spot request: Jan. 24, 2014 Crooked Finger 200 ODF Molalla
 Last wildfire spot request: Nov. 19, 2014 Grassy Island USFWS Willapa

TURN-AROUND TIME

Turn-around times (see chart on next page) have been fairly consistent over the past several years. Wildfire spot request turn-around time was a little higher this year compared to previous years. Some of this time increase was due to wildfire spot requests coming in during the evening, but not completed until the midnight shift. Prescribed burn request turn-around time was up slightly from last year, but remained under 40 minutes. Turn-around time was not counted for next-day spots. Average turn-around time for all other non-wildfire or non-prescribed burn spots was 60 minutes. At first glance, this seems like an extraordinarily long duration, but turn-around times for the spring spray forecast requests often exceeded 120 minutes. This lengthy turn-around period was acceptable to the user, per prior verbal or email agreement.

ANNUAL SPOT FORECAST TURN-AROUND TIME

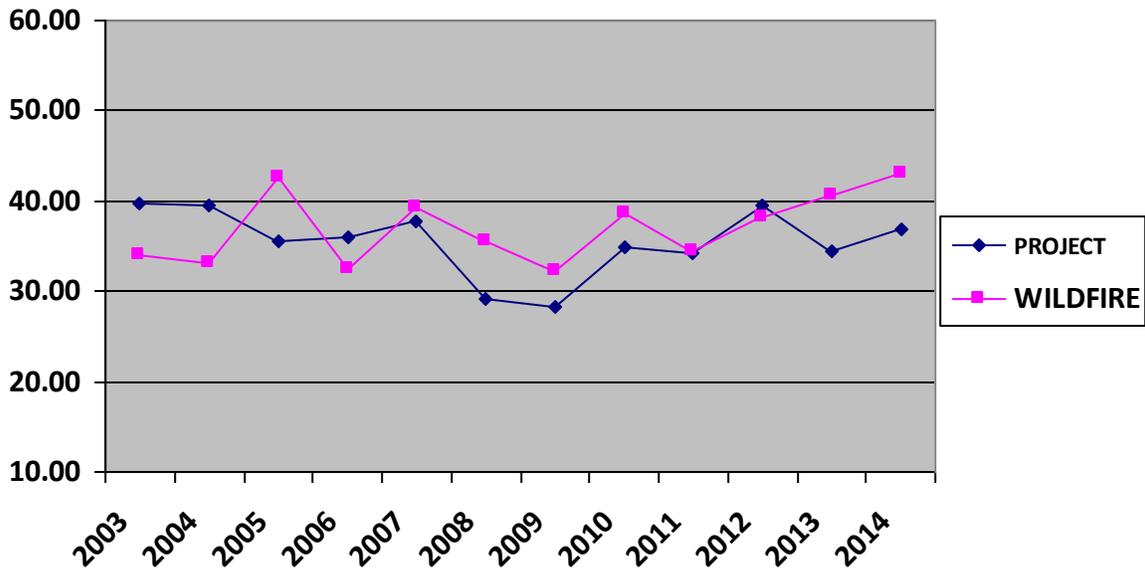
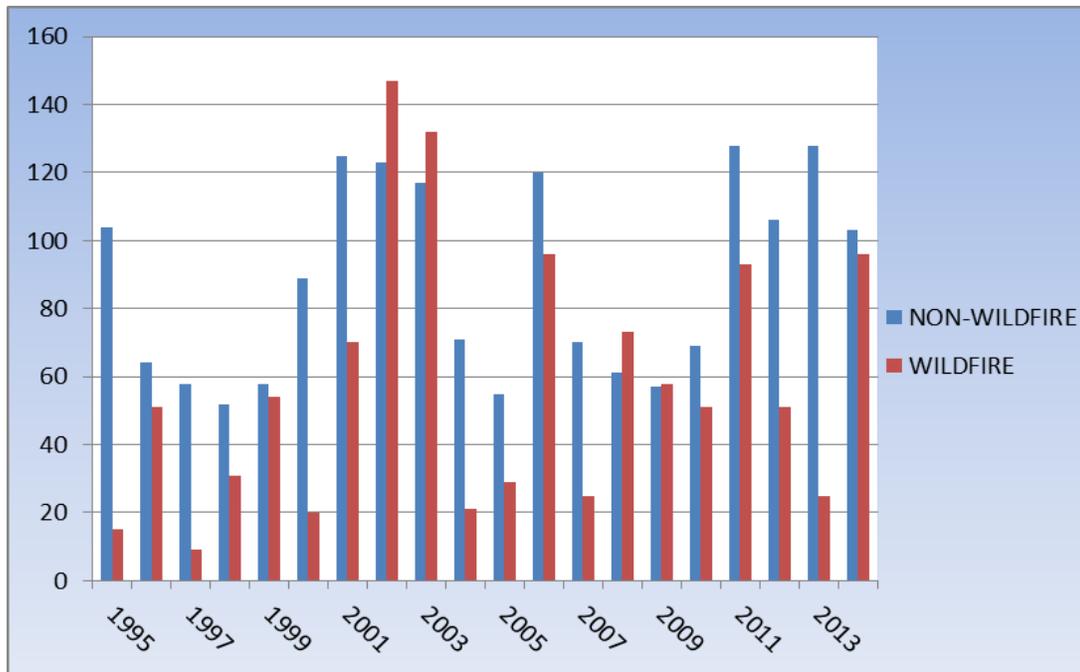


TABLE 8 – TURN-AROUND TIMES

YEAR	PROJECT	WILDFIRE
2014	36:52	43:05
2013	34:30	40:43
2012	39:35	38:17
2011	34:13	34:24
2010	34:47	38:33
2009	28:17	32:16
2008	29:07	35:38
2007	37:41	39:14
2006	36:01	32:33
2005	35:30	42:42
2004	39:30	33:06
2003	39:42	33:54

- *PROJECT TIMES ONLY INCLUDE PRESCRIBED BURN SPOTS*

ANNUAL SPOT FORECAST TOTALS



LARGE FIRES AND IMET DISPATCHES

The 2014 fire season was much longer than the 2013 season. Peak fuel conditions started in mid to late July and continued through early October. There was a higher frequency of lightning in July and the first half of August compared to previous years, and was the primary cause of most project or complex wildfires. There were six large fires or fire complexes in the Portland fire area of responsibility. The largest wildfire was the 6,033 acre Deception Complex in the Middle Fork District of the Willamette NF. This fire complex erupted a couple weeks after the Staley Complex. The 5,521 acre 36 Pit Fire was one of the largest fires ever recorded on the Clackamas District of the Mt. Hood NF. This fire started on September 13th and was not contained until October 10th. Table 9 shows the largest fires of the 2014 fire season.

TABLE 9 – MAJOR FIRES

FIRE NAME	AGENCY	SIZE	START DATE	CONTAIN DATE	CAUSE
Deception Complex	USFS Willamette	6033	August 11, 2014	October 21, 2014	Lightning
36 Pit Fire	USFS Mt. Hood	5521	September 13, 2014	October 10, 2014	Human
Yellow Point	ODF	790	September 5, 2014	September 14, 2014	Unknown
Bingham Complex	USFS Willamette	452	July 13, 2014	September 25, 2014	Lightning
Staley Complex	USFS Willamette	Approx. 275	July 30, 2014	October 21, 2014	Lightning
Scoggins Creek	ODF	211	September 19, 2014	September 23, 2014	Unknown

The Portland office filed **FOUR** IMET requests.

1. WATERMAN COMPLEX (12 DAYS)

IMET: SCOTT WEISHAAR
DATES: July 16th through July 27th, 2014
LOCATION: ICP – Mitchell High School
Ochoco NF
IMT: Oregon Team 3 (Type II)
CAUSE: Lightning

2. STALEY COMPLEX (15 DAYS)

IMET: SCOTT WEISHAAR
DATES: August 2nd through August 16th, 2014
LOCATION: ICP – Middle Fork RD
Willamette NF
IMT: Southern Cascades Type III – John Poet, IC
Rocky Mountain Type II Team A - IC Chuck Russell
CAUSE: Lightning

3. HAPPY CAMP COMPLEX (16 DAYS)

IMET: JON BONK
DATES: September 4th through September 19th, 2014
LOCATION: ICP – Happy Camp, CA and Fort Jones, CA
Klamath NF
IMT: California Type I Teams 1 and 4
IC – Jerry McGowan and Rocky Opplinger
CAUSE: Lightning

4. DECEPTION COMPLEX (10 DAYS)

IMET: SCOTT WEISHAAR
DATES: September 24th through October 3rd, 2014
LOCATION: ICP – Middle Fork RD and Flat Creek Work Center Oakridge, OR
Willamette NF
IMT: Southern Cascade Type III
IC – John Poet
CAUSE: Lightning

**TABLE 10 – TRAINING AND EDUCATIONAL OUTREACH
ACTIVITIES**

DATES	ACTIVITY	AGENCY/USER	INSTRUCTOR
January 9, 2014	S-190 PCC CASCADE	PORTLAND COMM. COLLEGE	WEISHAAR
March 8-9, 2014	S-290 LINCOLN CITY	LOCAL FD	WEAGLE
March 13-14, 2014	S-290 CLACKAMAS CC	CLACK. COMM. COLLEGE	BONK
March 28, 2014	FIRE WX OUTLOOK	PORTLAND AIR QUALITY	DONOFRIO
April 5, 2014	S-190 PCC CASCADE	PORTLAND COMM. COLLEGE	WEISHAAR
April 14-18, 2014	VIRTUAL IMET WORKSHOP	NWS	WEAGLE AND BONK ATTENDEES
April. 22, 2014	RT-130 HOOD RIVER	NWS	WEISHAAR AND BONK ATTENDEES
May 5, 2014	S-390 KELSO, WA	GIFF. PINCHOT	BONK
May 20, 2014	S-390 CLACKAMAS CC	CLACK. COMM. COLLEGE	BONK
May 29, 2014	IC 4/5 WORKSHOP	USFS	WEISHAAR
June 4, 2014	FIRE WX REFRESHER	COL. GORGE SCENIC AREA	WEISHAAR
October 3, 2014	S-190 PCC CASCADE	PORTLAND COMM. COLLEGE	ROCKEY