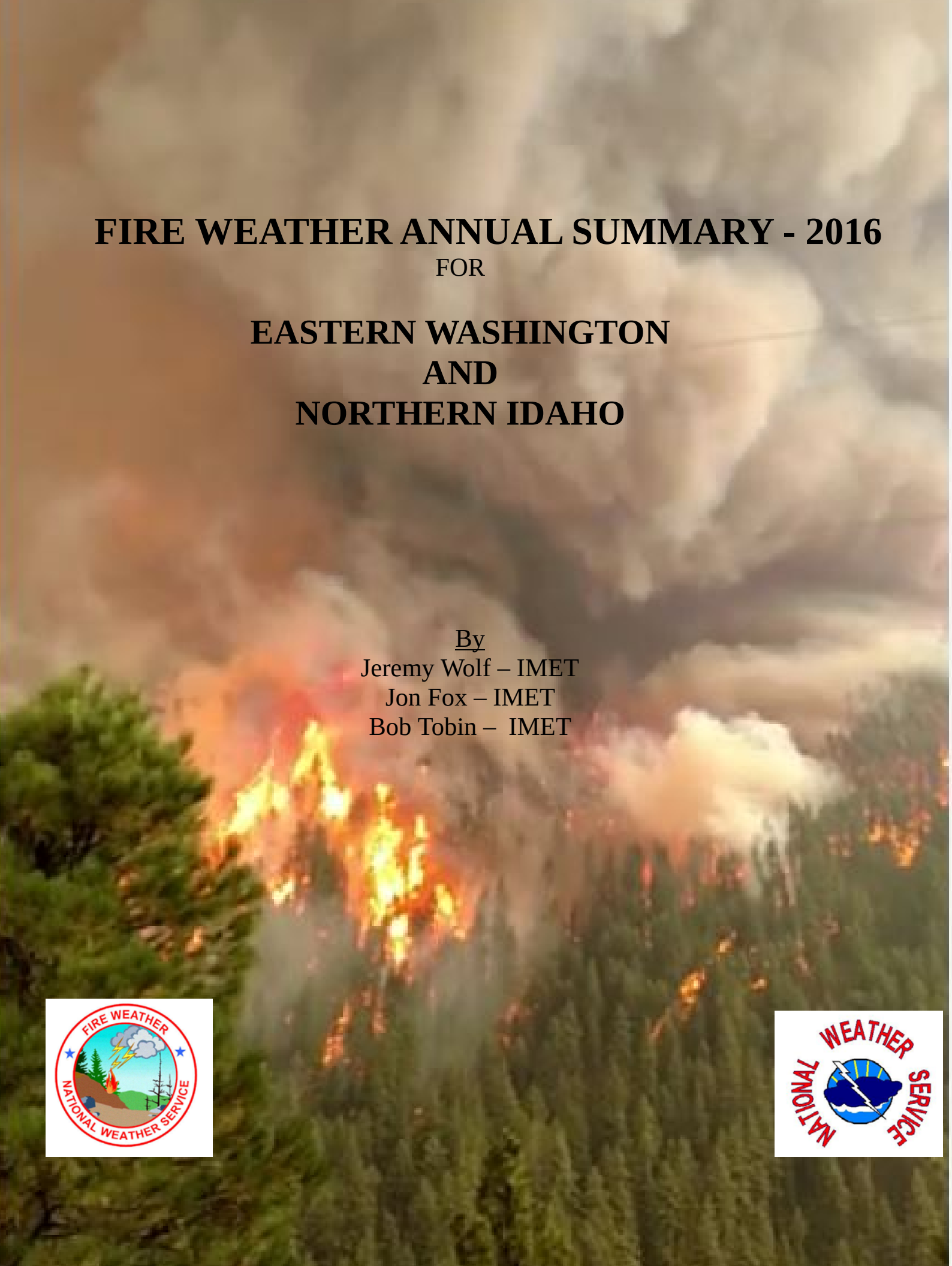

FIRE WEATHER ANNUAL SUMMARY - 2016

FOR

EASTERN WASHINGTON
AND
NORTHERN IDAHO

By

Jeremy Wolf – IMET

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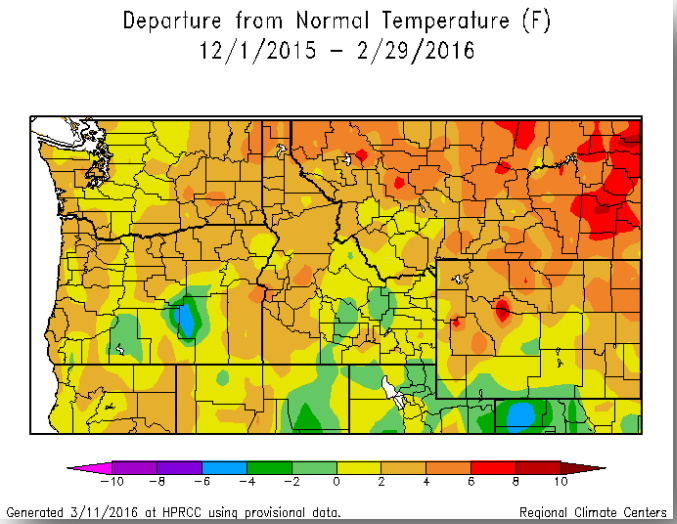
Winter 2015-2016 (Dec – Feb)

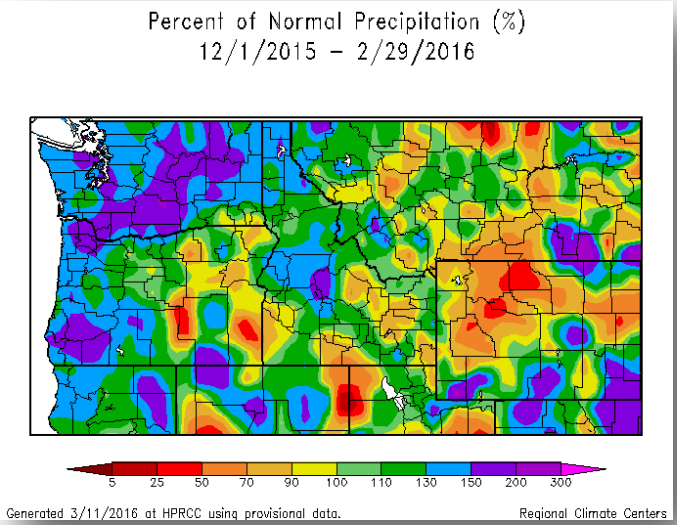
Unlike the last two winters which were characterized by ENSO neutral conditions, this one was influenced by one of the strongest El Niño episodes on record. Typically El Niños deliver warmer than normal temperatures and below normal snowfall to the Inland Northwest. So how did that pan out? Overall, we experienced yet another mild winter, with temperatures generally 3-6°F warmer than normal. Meanwhile the precipitation reports came wetter than normal. While that didn't necessarily translate to higher than normal snow depth, it certainly boosted the water content found in the snow. By the end of February, the snow water equivalent was at or above normal across most of the Cascades and north central Washington. This was a far cry from the previous year which saw historically low precipitation and snowpack conditions.

December was characterized by very wet weather with a dichotomy in temperatures. The month began with readings anywhere from 10 to 20° warmer than normal. However a change kicked in for the latter half of the month. The mild southwest flow pattern transitioned to a much cooler northwest flow pattern. The mild temperatures at the beginning of the month resulted in little snowfall; however there was plenty of precipitation. The abundance of precipitation resulted in flooding across northern portions of the Idaho Panhandle. The cooler temperatures for the latter half of the month transitioned the rain to freezing rain, however the last 10 days of the month saw snow, and lots of it as several storms blasted the region. By the end of the month Spokane recorded 2 feet of snow. This is about 10 inches snowier than normal.

The new year and **January** continued with the cold which described the end of 2015. Widespread single digit temperatures were reported. But this chill was quickly replaced with a milder and wetter pattern by the 4th and persisted through the middle of the month. Despite the warming temperatures it remained cool enough for widespread snow. The northern Cascades got hit especially hard with several days of 6+ inches falling in the valleys and much heavier amounts in the mountains. The cold at the beginning of the month became a distant memory by the last 10 days of the month. Most valley locations saw high temperatures in the 40s to middle 50s which took a toll on the lowland snow pack.

While the first few days of **February** were abnormally cool the remainder of the month was quite mild. There were several moderate strength weather systems which traversed the Inland Northwest; however they delivered the bulk of their precipitation to the Cascade crest as well as the northeast corner of Washington and the north Idaho Panhandle. Meanwhile the remainder of the region saw relatively dry conditions. This resulted in snow over the mountains and primarily rain in the valleys.





Temperatures during the winter were substantially warmer than normal over the entire Pacific Northwest (orange & yellow shading, top image). **Precipitation** amounts were wetter than normal across the entire region. The wettest conditions (purple) were found across the central portions of Washington (bottom image).

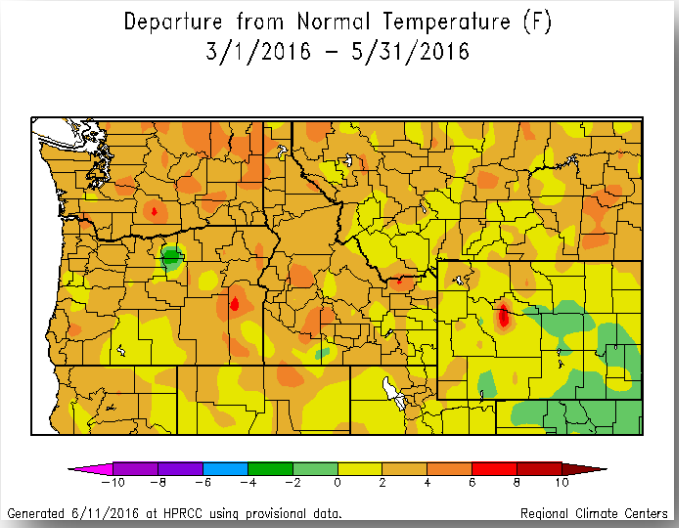
Spring 2016 (MAR – MAY)

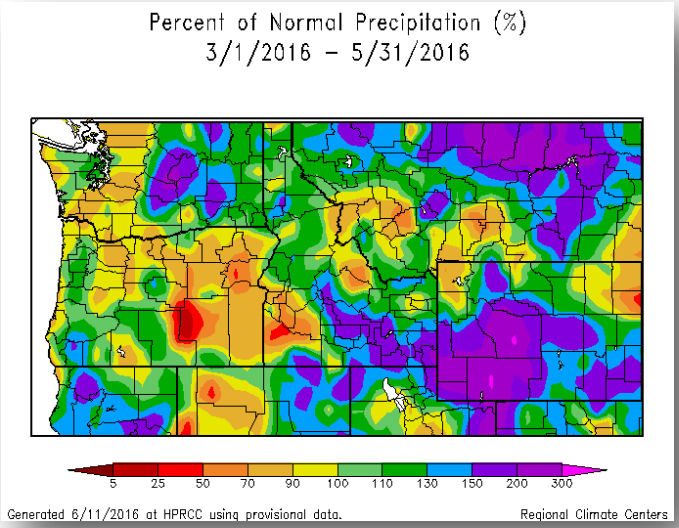
The wet and warm conditions which characterized most of the winter, continued into the spring. Although precipitation was plentiful, the mountain snowpack was quickly depleted as it rapidly melted off into the area rivers and streams. In fact, for some locations across the Inland Northwest we went from a near-normal snowpack at the beginning of the April to a non-existent one by early May. For some sites this was the fastest melt off on record.

The month of March started off on a very wet note. Precipitation was noted almost every day for first 13 days of the month with some copious totals amassed. Nearly 2.5" of rain fall in the Wenatchee area during this time with totals doubling that in Leavenworth and Stehekin. The Cascades weren't alone in the wet weather however as portions of the north Idaho Panhandle also saw up to 5" of precipitation. While temperatures were generally mild enough for rain, the area mountains and Methow Valley got socked with snow. Holden Village saw 43" of snow during this time with around a foot and a half in Mazama. During the middle of the month conditions began to dry a bit, but wetter and cooler weather returned for a brief stretch between the 22nd and 28th. By the time the month was over, several locations broke records for precipitation. This included Davenport, Wenatchee, and Lind.

After a wet March, **April** brought unseasonably warm temperatures. In fact it was record breaking for a long list of locations including: Wenatchee, Bonners Ferry, Grand Coulee, Mazama, Pullman, and Republic. The month also was drier than normal for most of the region. The one exception was the Wenatchee area where in just three hours they received the normal monthly amount of April rainfall when 0.50 inches fell on the 14th. Also, localized heavy rain from thunderstorms developed on the 22nd over the Idaho Panhandle and northeast Washington mountains. The Diamond Lake area was hardest hit with a few reports of quarter size hail and 2.57 inches of rain.

May started off like much of April with unseasonably warm temperatures for the first eight days. High temperatures in the 70s to middle 80s were common. Thunderstorms also developed from this heat. Between the 4th and 5th numerous thunderstorms developed. While most were fairly weak, they did produce a large gust front which stirred up blowing dust and 40-50 mph winds across the Columbia Basin and Spokane area. The balance of May brought typical spring weather, with rapidly changing bouts of dry and warm weather followed by wet and cool weather. Each changing weather episode was accompanied by thunderstorms. While most weren't strong a particularly impactful one struck the Spokane area on the 22nd. This storm produced 2-3 inches of rain in a short period of time led to flooded roads and some debris flows.





Temperatures during the spring were warmer than normal over the entire Pacific Northwest (orange and yellow shading, top image). **Precipitation** amounts were generally near normal or drier than normal (bottom image).

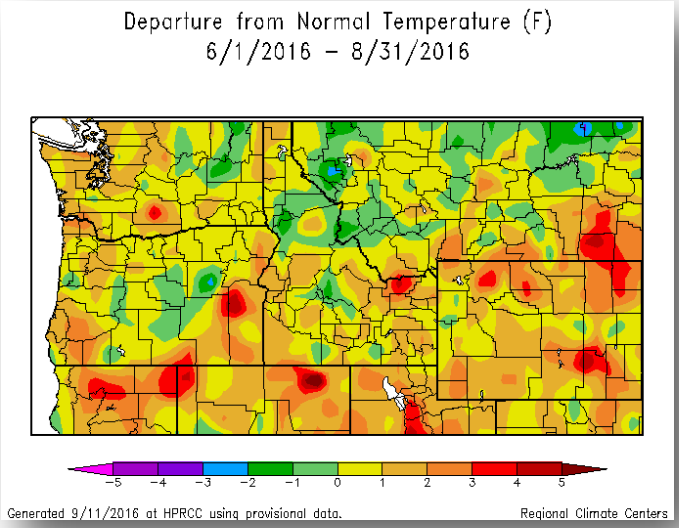
Summer 2016 (Jun-Aug)

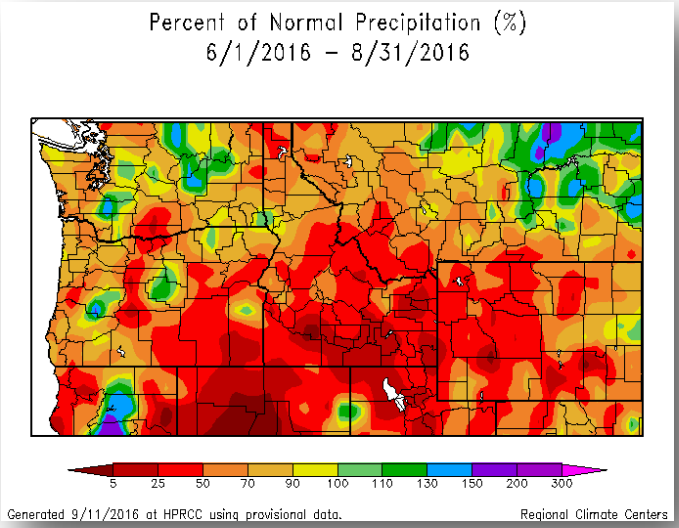
After a record hot summer in 2015 and a very active fire season many were wondering would this summer follow in its footsteps. Thankfully, the answer was no. Temperatures were close to normal but precipitation remained on the dry side over the majority of the area. The exception to the dry was over portions of the Columbia Basin, Methow and Okanogan Valleys, and Lewiston area.

June started off with summer like heat. High temperatures surged into the 90s from the 4th through the 7th. After the first week though, the pattern changed markedly. Several weather systems paraded through the region delivering scattered showers and thunderstorms. Some of these thunderstorms were quite powerful for the usually tranquil Inland Northwest. Several thunderstorms produced quarter to golf ball sized hail across the southern portions of the Idaho Panhandle. By the end of the month, high pressure returned as did the summer heat. Highs by this period were generally in the 80s and middle 90s.

July was an active but cool month across the Inland NW with an abundant amount of showers and thunderstorms. While the precipitation was generally hit and miss, some were noteworthy due to their impacts. On the 19th a storm about five miles east of Chelan produced flash flooding and debris flows. Even stronger storms occurred on the 22nd and 26th. On the 22nd a low pressure system tracked across northern Washington and Idaho producing abundant lightning, severe thunderstorms, and even two weak tornadoes on the Waterville Plateau and in Airway Heights. The thunderstorms on this day also downed trees and dropped nickel sized hail over the Spokane area. Meanwhile over the north Cascades mud and debris flows were reported. On the 26th strong thunderstorms near the Canadian border sent out an gust front which knocked down trees between Addy and Chewelah.

August was characterized by several bouts of windy conditions as strong cold fronts tracked through the Inland Northwest. These winds lead to the increased spread of large grass fires over the region. The most noteworthy of these fronts went through on the 21st with very warm, dry, and windy conditions during the afternoon and evening preceding the front. In the Spokane area alone, two large fires were sparked while another large fire developed near Davenport. The winds were strong enough on the Davenport fire that it was able to cross a wide portion of the Spokane River. The resulting fire north of the river moved toward the town of Wellpinit. This trio of fires was responsible for burning numerous houses and outbuildings. Most of them were the result of the Yale Road Fire which was part of the Spokane Complex. A smaller fire developed near Northport and was responsible for burning a couple of structures. Another strong front on the 18th originated across southeast British Columbia and pushed 47 mph winds down the Purcell Trench. This resulted in downed trees and scattered power outages including in the Sandpoint area.





For the summer, **Temperatures** were near normal. (top image). **Precipitation** amounts were generally below normal except for the Cascades and western Columbia Basin(bottom image).

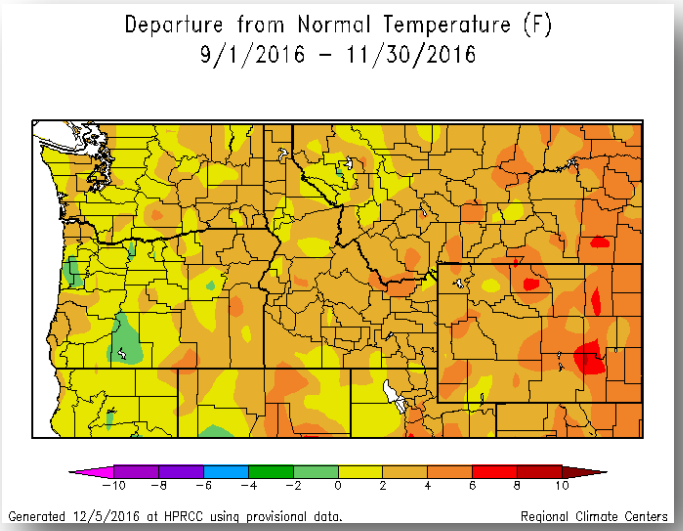
Autumn 2016 (Sep-Nov)

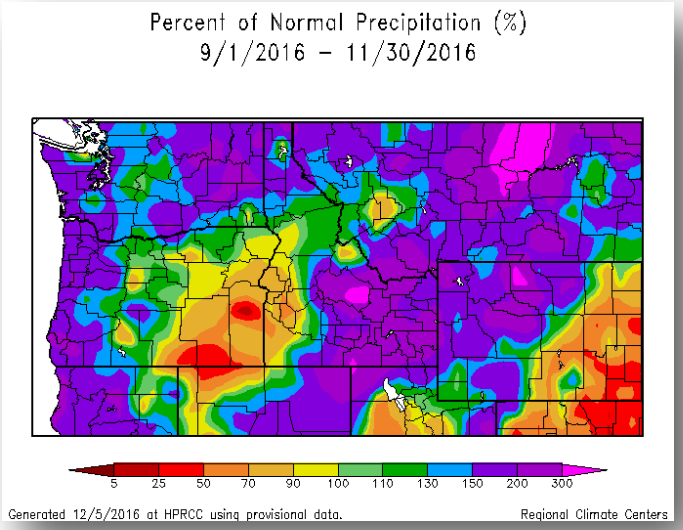
This fall sure provided the region with some dramatic and rapidly changing weather conditions. Overall, it was a mild autumn with extremely wet conditions.

September lived up to its reputation as being a tranquil month weather wise with few if any noteworthy events. Scattered showers and thunderstorms on the 8th produced 42 mph winds in the Spokane area but little if any damage. For most of the region drier than normal conditions were encountered. The exception was near the Cascade crest and over the Idaho Panhandle where a round of heavy rain on the 17th delivered widespread 1-2" totals. One last stretch of summer like heat arrived on the 26th and lingered through the end of the month. Widespread high temperatures surged into the 80s with even a few lower 90s developing.

After a quiet September, some were hoping that **October** would provide more of the same. However that was not the case. It was an extremely cool, cloudy, and rainy month. Many locations across the region broke records for month. As impressive as that is, it was even more noteworthy in Spokane. The 6.23" which fell at the airport was the most that has fallen previously in **any month**! Rain was reported on over 2/3rds of the days that month. Needless to say all the clouds and rain delivered much cooler than normal high temperatures. The clouds also blanketed the area at night and prevented much of the region from seeing the typical Autumnal freezes. In fact only 2 minor freezes were reported during the month.

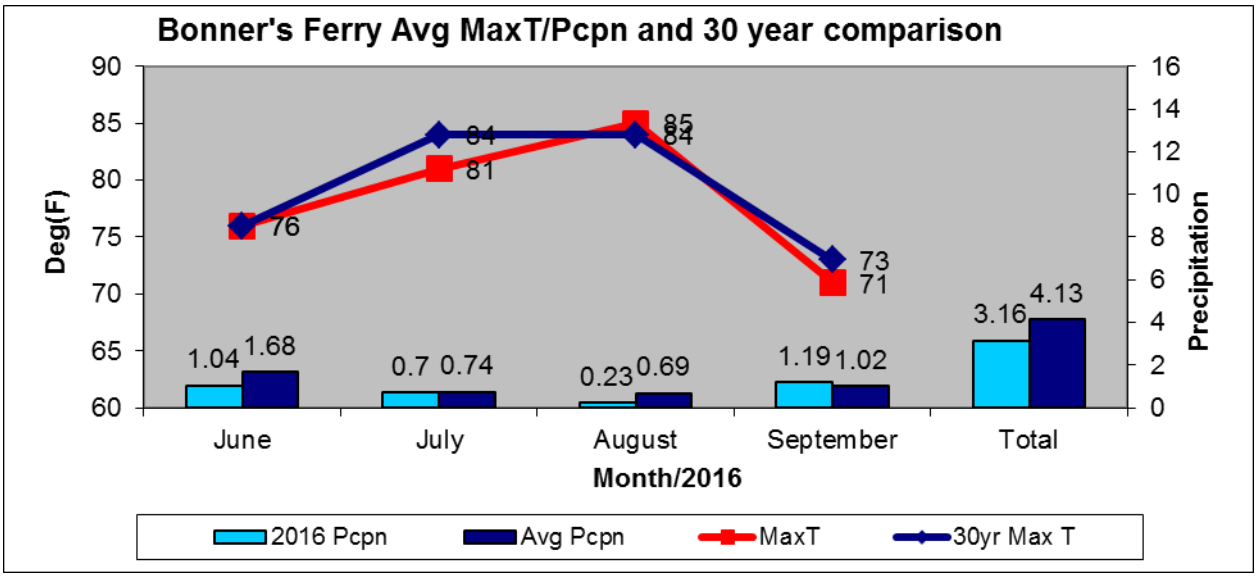
After a record wet October, the weather pattern changed in **November**. The first half of the month was much warmer and drier than normal with high temperatures in the 50s and 60s. Meanwhile the typical fall freezes continued to avoid the region. The pattern then turned cooler and wetter although temperatures still remained slightly above normal for most locations through the remainder of the month. By the time the month was complete the bout of cooler which developed wasn't enough to offset what was overall a very mild month. For Ephrata, Wenatchee, Mazama, Ritzville, Chewelah, and Bonners Ferry it was the warmest November on record. Lewiston saw their in 3rd warmest November while Spokane came in fourth. The cooler and wetter pattern that developed at the end of the month came as good news to the local ski areas, some of which were able to open just after Thanksgiving.

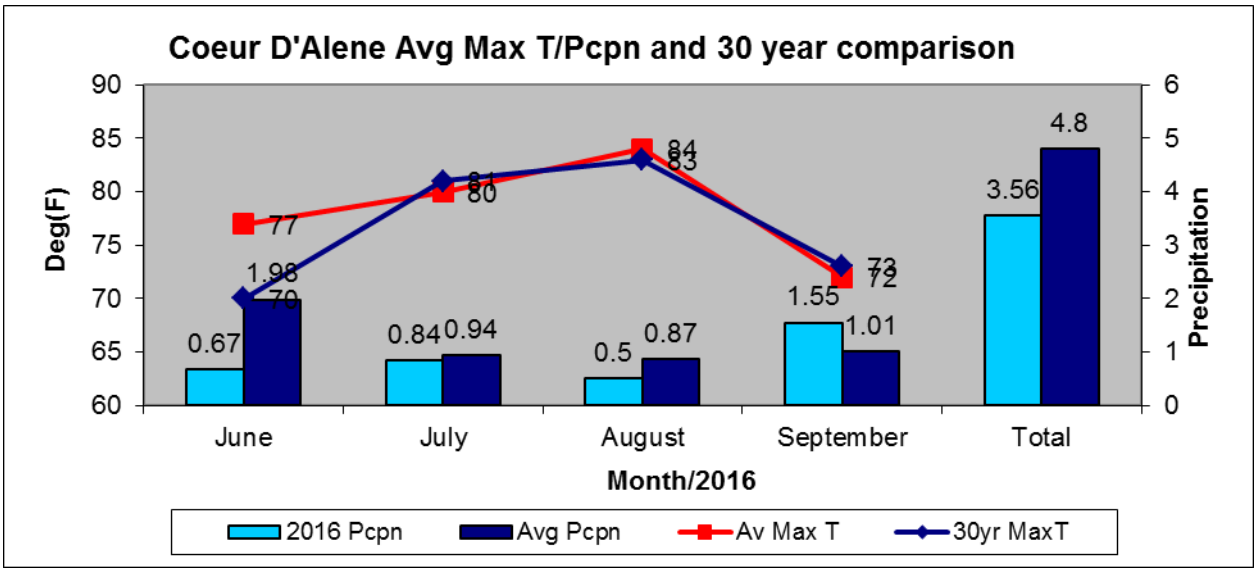


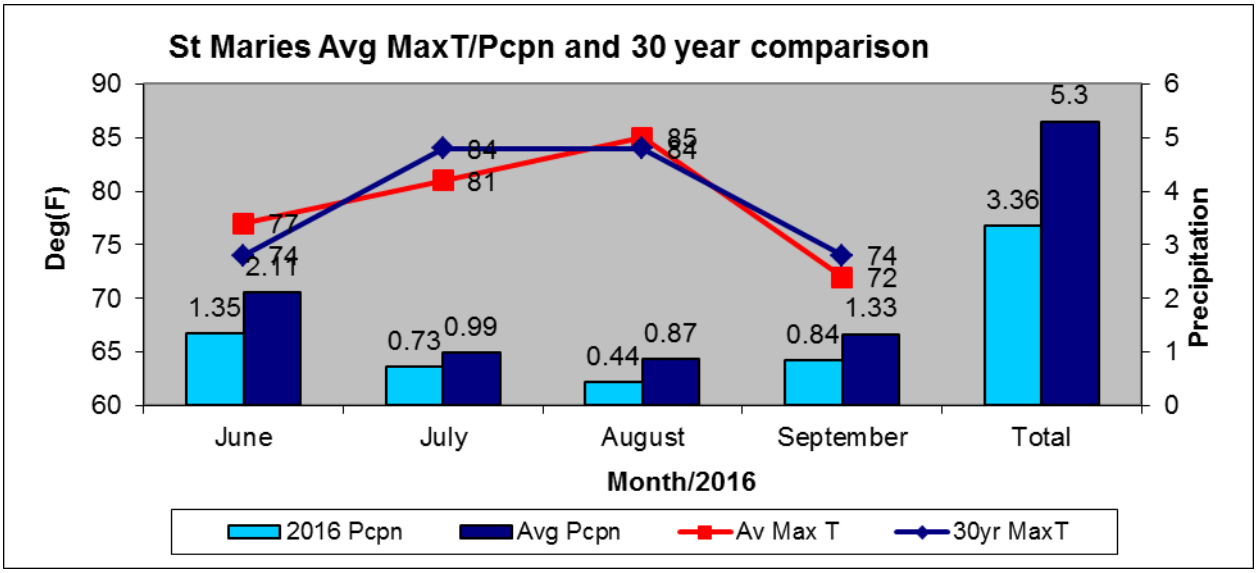


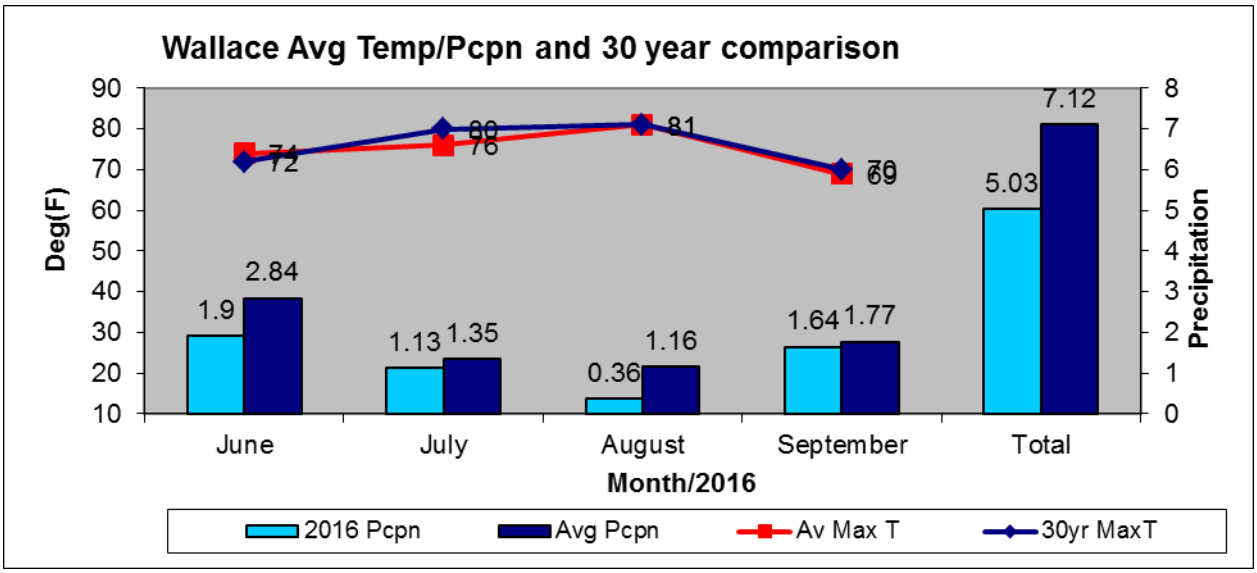
Temperatures were warmer than normal for the entire region this autumn (yellow and orange shading, top image). **Precipitation** amounts were much wetter than normal. Some locations saw in nearly three times the normal precipitation for the period (bottom image purple shading).

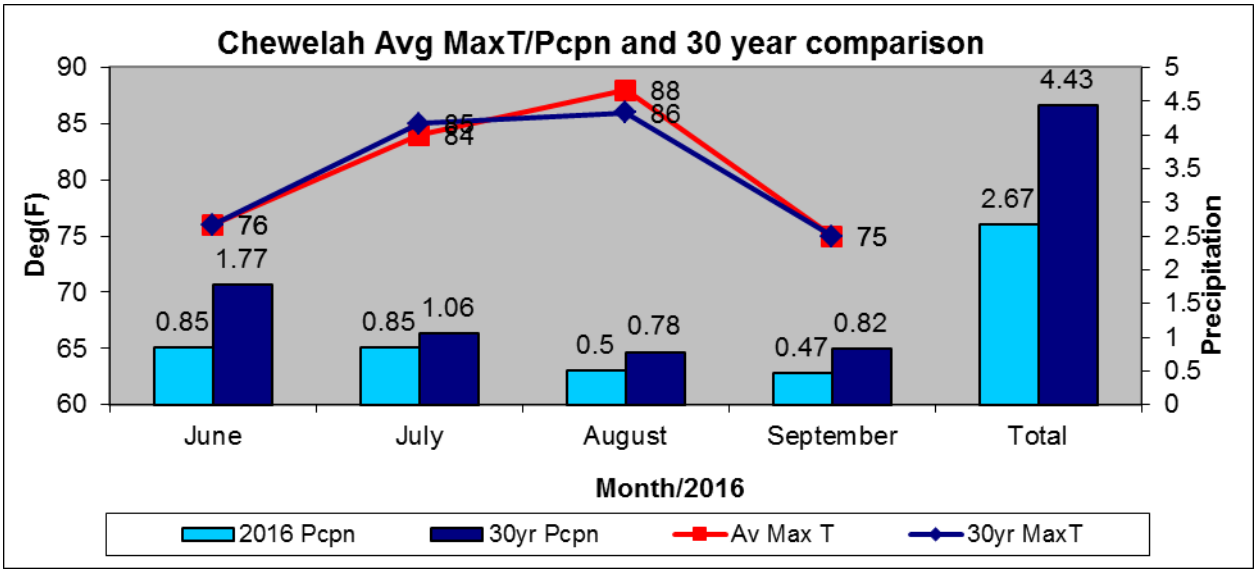
2016 GRAHPICAL WEATHER DATA

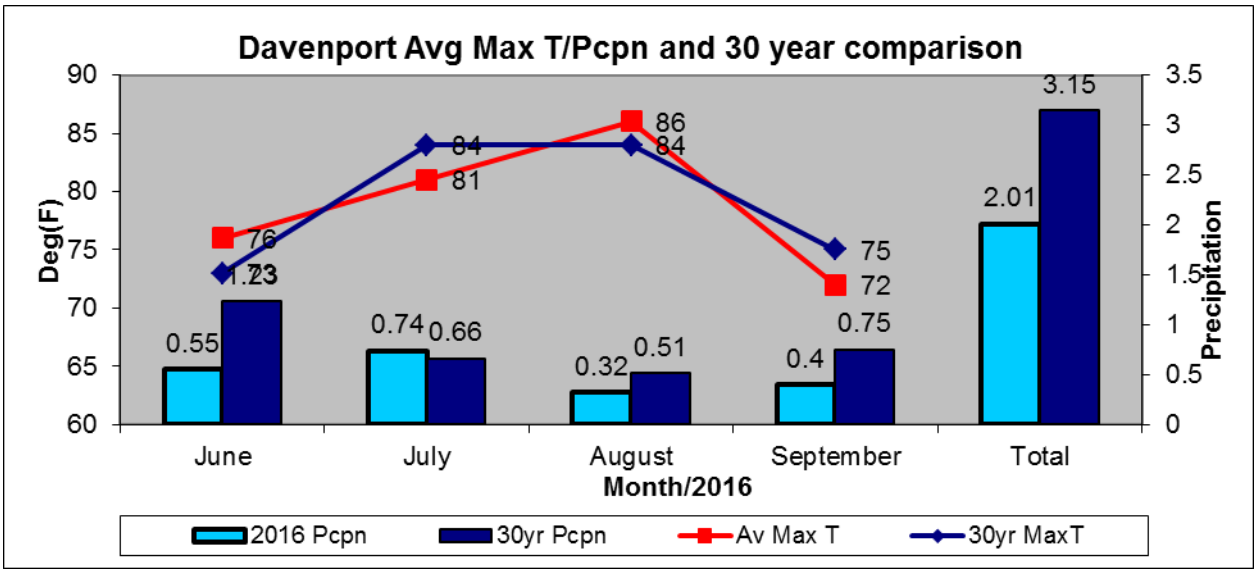


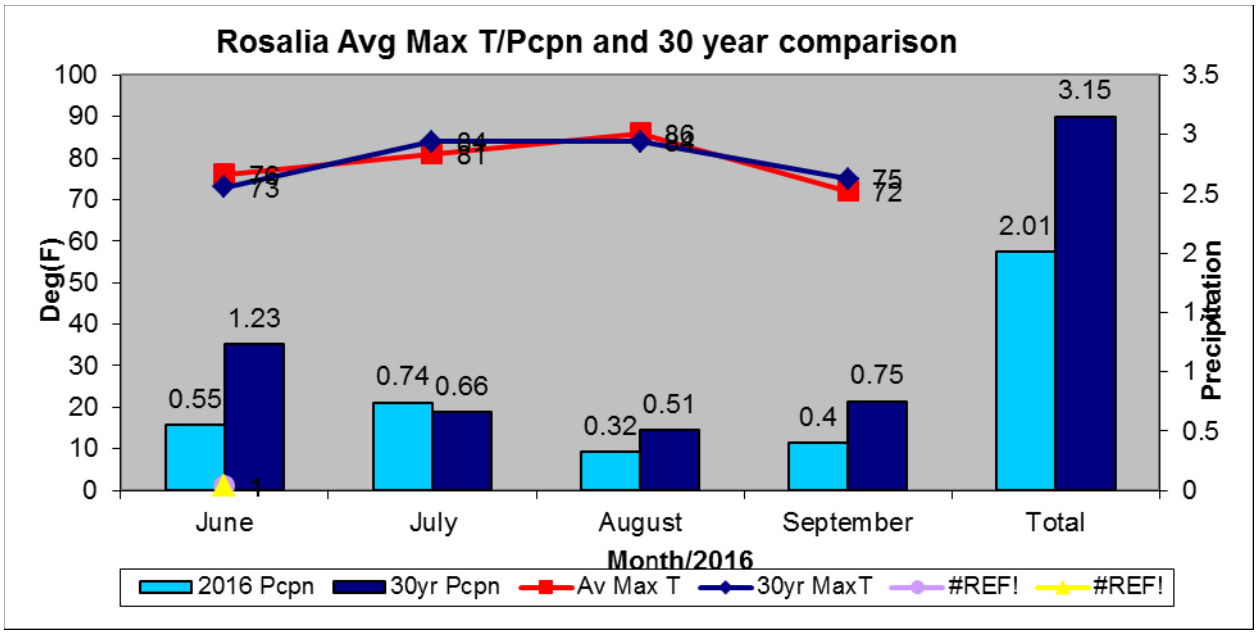


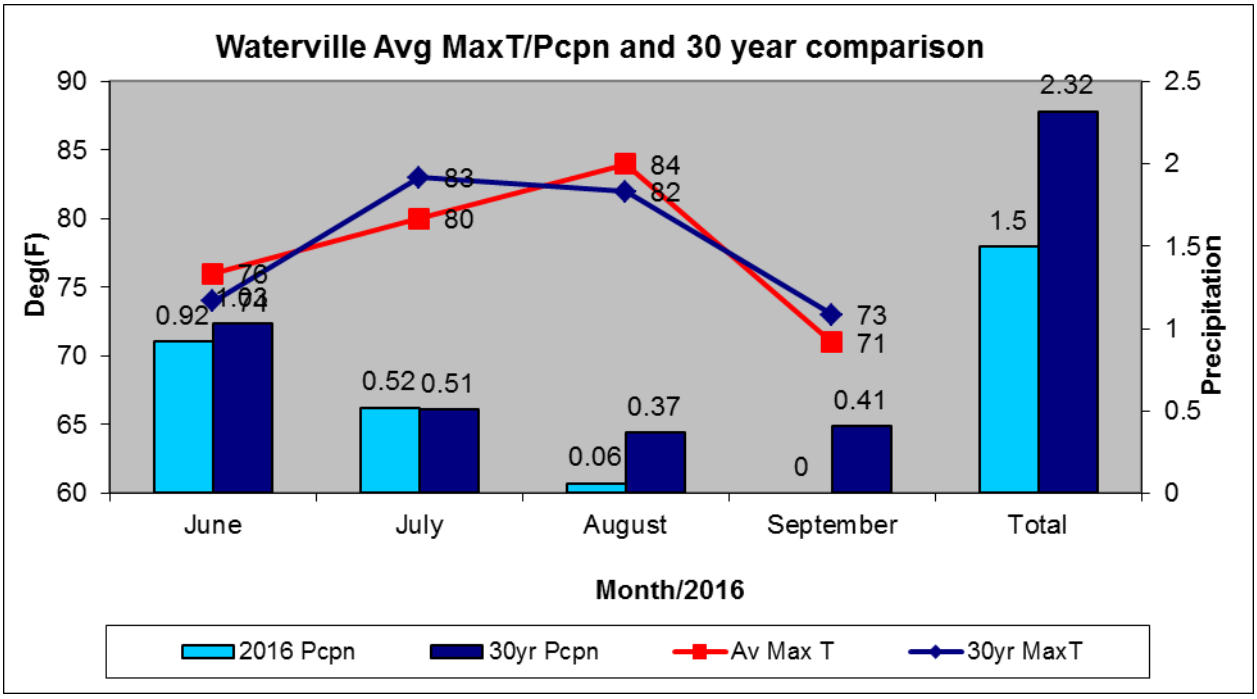

St Maries Avg MaxT/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
85
80
75
70
65
60
6
5
4
3
2
1
0
77
74
81
84
85
84
74
72
1.35
2.11
0.73
0.99
0.44
0.87
0.84
1.33
3.36
5.3
June
July
August
September
Total
Month/2016
2016 Pcpn
Avg Pcpn
Av Max T
30yr MaxT

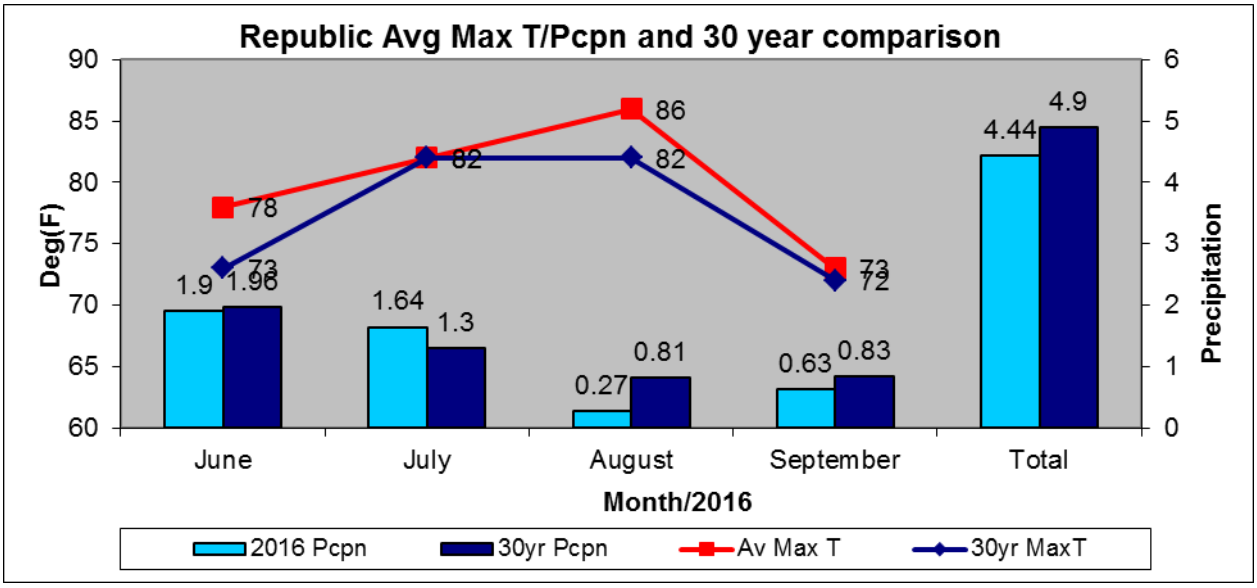

Wallace Avg Temp/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
80
70
60
50
40
30
20
10
8
7
6
5
4
3
2
1
0
72
76
80
81
69
1.9
2.84
1.13
1.35
0.36
1.16
1.64
1.77
5.03
7.12
June
July
August
September
Total
Month/2016
2016 Pcpn
Avg Pcpn
Av Max T
30yr MaxT

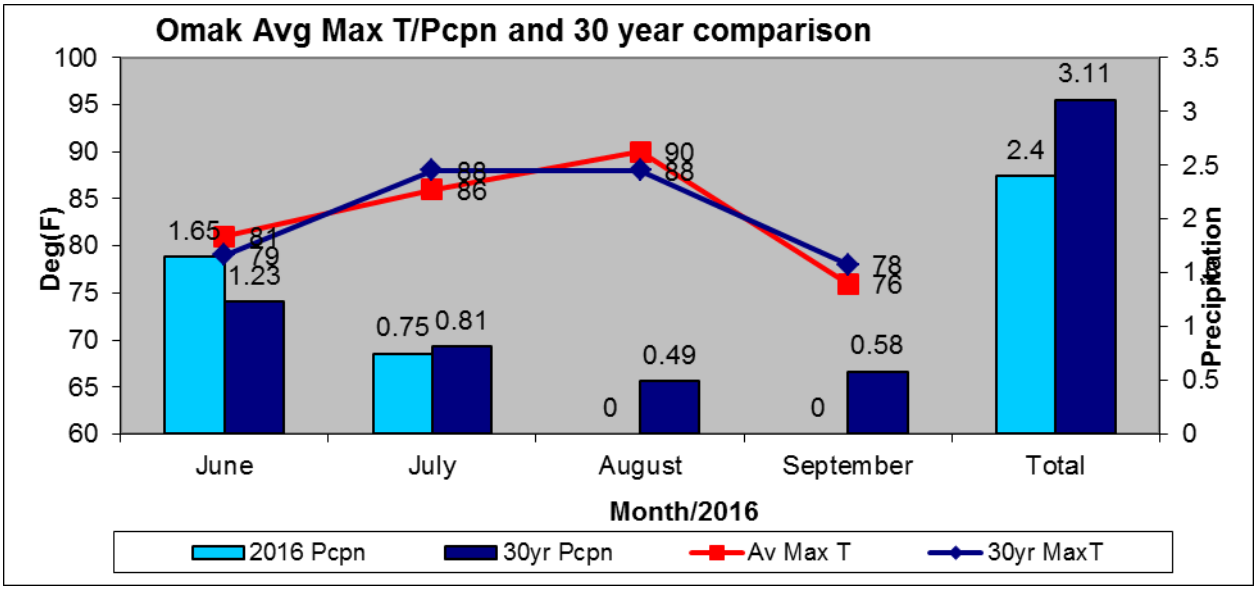

Chewelah Avg MaxT/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
85
80
75
70
65
60
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
76
88
86
84
75
1.77
0.85
0.85
1.06
0.5
0.78
0.47
0.82
2.67
4.43
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT

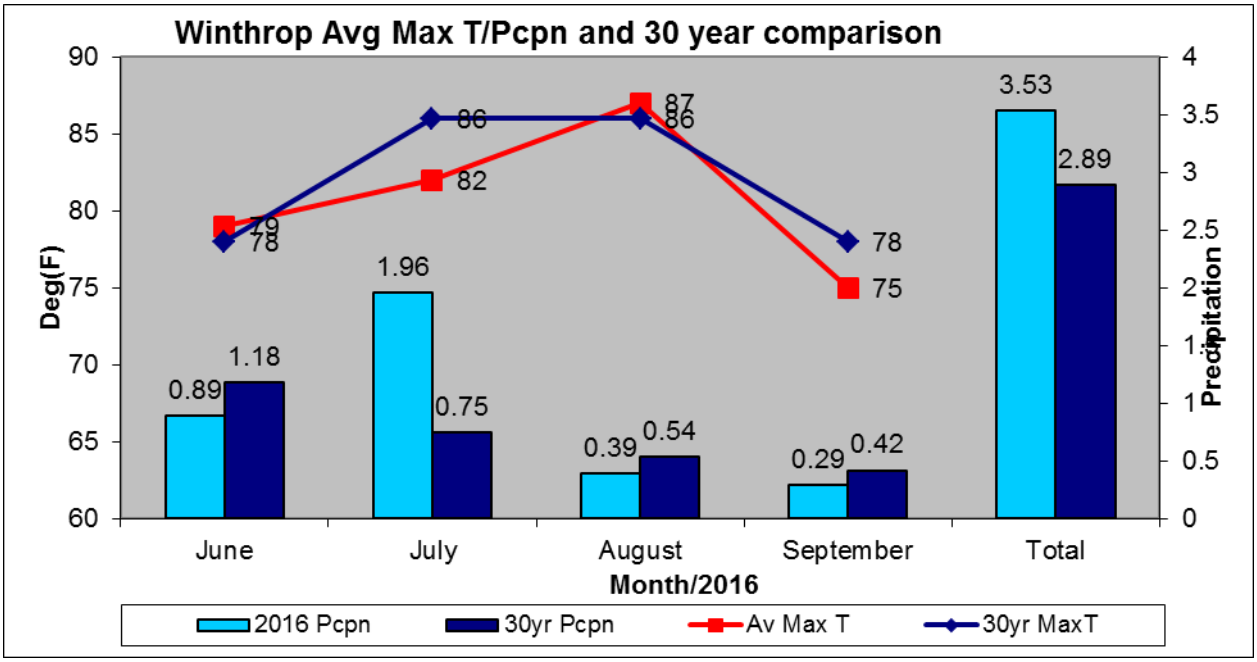

Davenport Avg Max T/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
85
80
75
70
65
60
3.5
3
2.5
2
1.5
1
0.5
0
76
84
81
86
84
75
72
0.55
0.74
0.66
0.32
0.51
0.4
0.75
2.01
3.15
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT


Rosalia Avg Max T/Pcpn and 30 year comparison
Deg(F)
Precipitation
100
90
80
70
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
76
73
81
84
86
75
72
0.55
1.23
0.74
0.66
0.32
0.51
0.4
0.75
2.01
3.15
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT
#REF!
#REF!


Waterville Avg MaxT/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
85
80
75
70
65
60
2.5
2
1.5
1
0.5
0
70
83
80
84
82
73
71
0.92
0.52
0.51
0.06
0.37
0
0.41
1.5
2.32
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT


Republic Avg Max T/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
85
80
75
70
65
60
6
5
4
3
2
1
0
78
86
82
82
73
72
1.9
1.96
1.64
1.3
0.27
0.81
0.63
0.83
4.44
4.9
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT


Omak Avg Max T/Pcpn and 30 year comparison
Deg(F)
Precipitation
100
95
90
85
80
75
70
65
60
3.5
3
2.5
2
1.5
1
0.5
0
1.65
1.23
0.75
0.81
0
0.49
0
0.58
2.4
3.11
90
88
86
78
76
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT


Winthrop Avg Max T/Pcpn and 30 year comparison
Deg(F)
Precipitation
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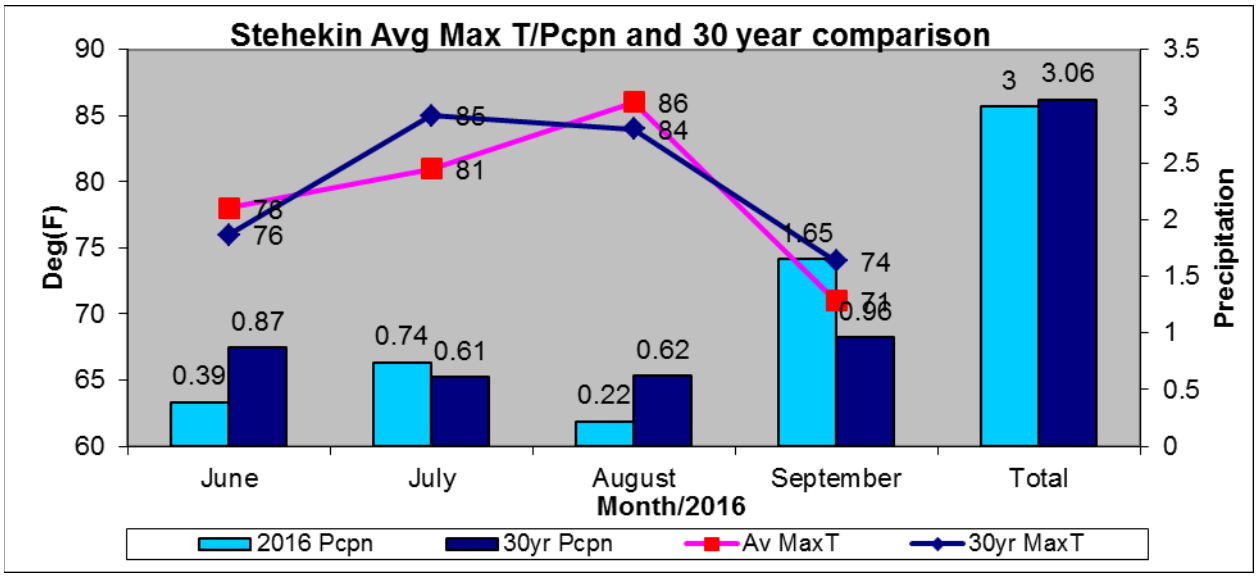
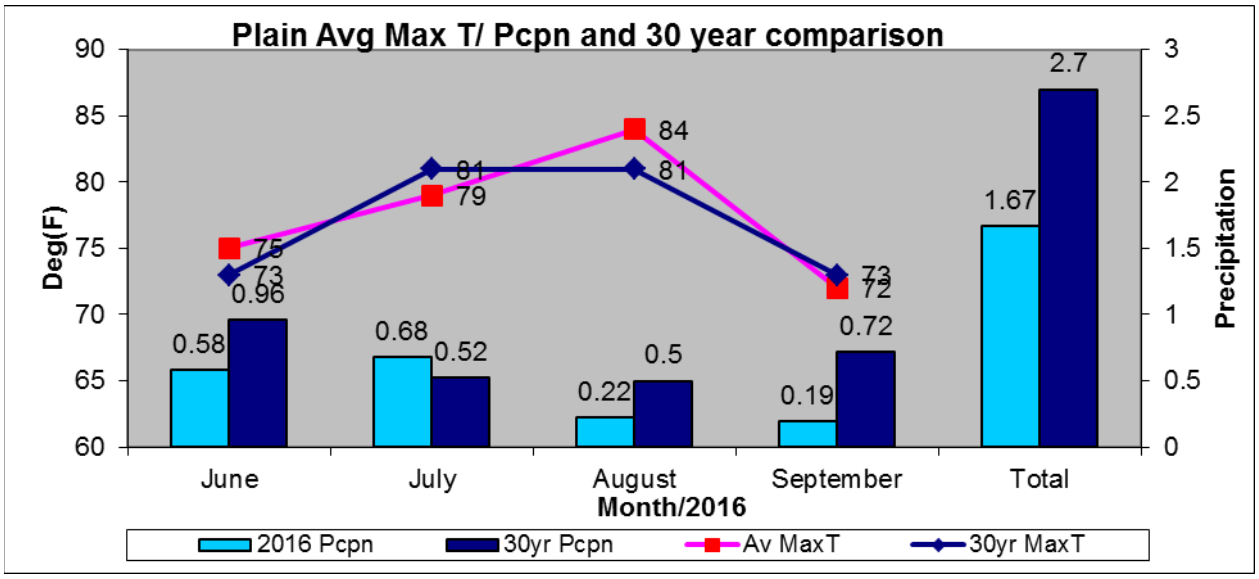
80
75
70
65
60
4
3.5
3
2.5
2
1.5
1
0.5
0
79
78
82
87
86
86
78
75
1.96
3.53
2.89
1.18
0.89
0.75
0.39
0.54
0.29
0.42
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av Max T
30yr MaxT


Stehekin Avg Max T/Pcpn and 30 year comparison
Deg(F)
Precipitation
90
85
80
75
70
65
60
3.5
3
2.5
2
1.5
1
0.5
0
78
76
81
86
85
84
74
71
1.65
0.96
3
3.06
0.87
0.39
0.74
0.61
0.22
0.62
June
July
August
September
Total
Month/2016
2016 Pcpn
30yr Pcpn
Av MaxT
30yr MaxT


Plain Avg Max T/ Pcpn and 30 year comparison
Deg(F)
Precipitation
Month/2016
June
July
August
September
Total
2016 Pcpn
30yr Pcpn
Av MaxT
30yr MaxT
75
73
84
79
81
81
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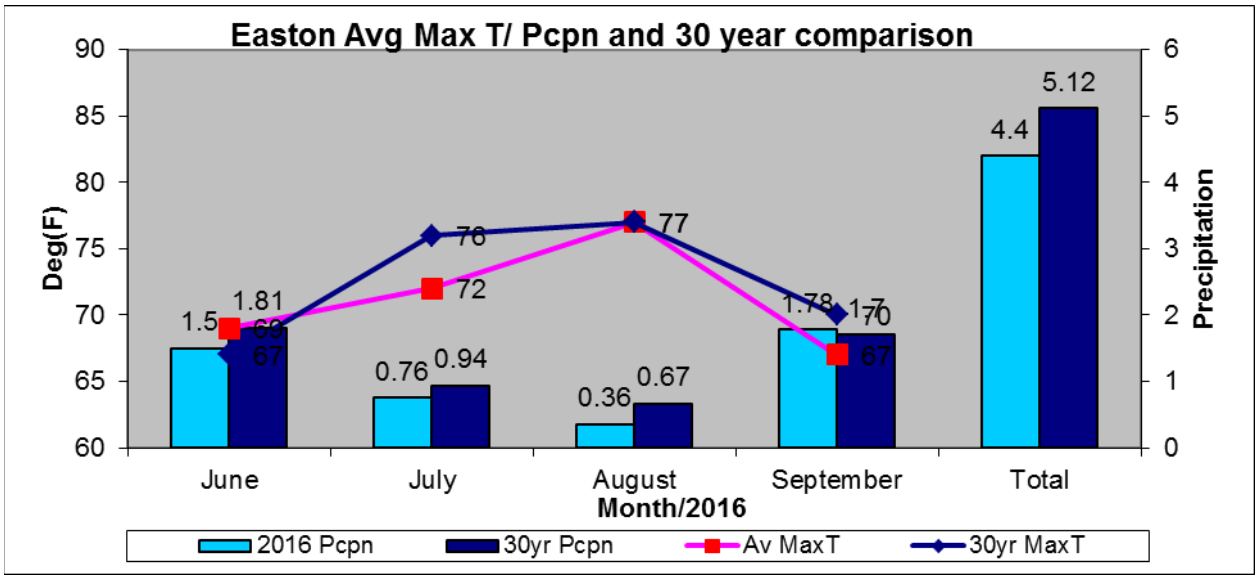
2.7


Easton Avg Max T/ Pcpn and 30 year comparison
Deg(F)
Precipitation
Month/2016
June
July
August
September
Total
2016 Pcpn
30yr Pcpn
Av MaxT
30yr MaxT
1.5
1.81
69
67
72
76
77
70
67
0.76
0.94
0.36
0.67
4.4
5.12

SPOKANE 2016 RED FLAG WARNINGS/WATCHES PROBLEMS

Date	Zones	Reason	Verification	Lead Time (hours)
Jun 30	673,676,677	Wind/Low RH/ Stability	Yes 676,677 No 673 Preceded by watch	16
Jul 3	673, 674,676,677,684	Wind/Low RH/ Stability	Missed warning 684 Yes 673, 674, No 677 Preceded by a watch	0 16
Jul 30	673, 674, 676, 676 680	Wind/Low RH/ Stability	Yes to all Missed Warning Preceded by a watch	27 0
Aug 2	673, 674, 684, 685,686,101	Wind/Low RH/ Stability	Yes 673, 674,684, 686 No 685, 101 673, 674 Preceded by watch	27
Aug 18	673, 684,685,687	Wind/Low RH/ Stability	Yes 673, 684 No 685,687 Preceded by Watch	28
Aug 20	680, 682	Wind/Low Rh/ Stability	Yes – Haines 5+ Not Preceded by watch	26
Aug 21	673, 74,676,677,684,686 ,687,101	Wind/Low Rh/ Stability	Yes – all Preceded by watch 673, 674,676,677 only	28
Aug 27	101,673,674, 686	Wind/Low Rh/ Stability	Yes 101, 673, 674 No 686 Preceded by a watch	27
Sep 11	684, 685, 673	Wind/Low Rh/ Stability	Yes 684, 673 No 685 684 Preceded by Watch	28
Sep 12	673	Wind/Low Rh/ Stability	Yes Not Preceded by Watch	24

Total Warnings: 38 Dry Lightning: 0 Wind/low RH/Haines/Instability: 38
Correct Warnings: 30 Incorrect Warnings: 8 Missed Warnings: 2

Probability of Detection:	**Dry Lightning 0.00**	**Wind/low RH/Haines 0.94**	**All 0.94**
False Alarm Rate:	**Dry Lightning 0.00**	**Wind/low RH/Haines 0 .21**	**All 0.21**
Critical Success Index:	**Dry Lightning 0.00**	**Wind/low RH/Haines 0.75**	**All 0.75**

ALL WARNINGS

All RFW by Month	*JUN*	*JUL*	*AUG*	*SEP*	*OCT*	*Season*
Warnings	3	7	24	4	0	38
Warned Events	2	6	19	3	0	30
Unverified Warnings	1	1	5	1	0	8
Missed Events	0	2	0	0	0	2
Total Events	2	8	19	3	0	32
POD	1.00	0.75	1.00	1.00	0.00	0.94
FAR	0.33	0.14	0.21	0.25	0.00	0.21
CSI	0.67	0.67	0.79	0.75	0.00	0.75

WARNINGS FOR DRY LIGHTNING

RFW for Dry Lightning	673	674	676	677	680	682	684	685	686	687	101	All Zones
Warnings	0	0	0	0	0	0	0	0	0	0	0	0
Warned Events	0	0	0	0	0	0	0	0	0	0	0	0
Unverified Warnings	0	0	0	0	0	0	0	0	0	0	0	0
Missed Events	0	0	0	0	0	0	0	0	0	0	0	0
Total Events	0	0	0	0	0	0	0	0	0	0	0	
Lead Time (hours)												
POD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CSI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WARNINGS FOR LOW RH COMBINED WITH WIND OR HAINES OR INSTABILITY

RFW for Wind/RH	673	674	676	677	680	682	684	685	686	687	101	All Zones
Warnings	9	5	3	4	1	1	4	3	3	2	3	38
Warned Events	8	5	3	3	1	1	4	0	2	1	2	30
Unverified Warnings	8	0	0	1	0	0	0	3	1	1	1	8
Missed Events	0	0	0	0	0	0	1	0	0	0	0	2
Total Events	8	5	3	3	2	1	5	0	2	1	2	32
Lead Time (hours)	24	25	24	24	13	26	14	7	28	12	16	17
POD	1.00	1.00	1.00	1.00	0.50	1.00	0.80	0.00	1.00	1.00	1.00	0.94
FAR	0.11	0.00	0.00	0.25	0.00	0.00	0.00	1.00	0.33	0.50	0.33	0.21
CSI	0.89	1.00	1.00	0.75	0.50	1.00	0.80	0.00	0.67	0.50	0.67	0.75

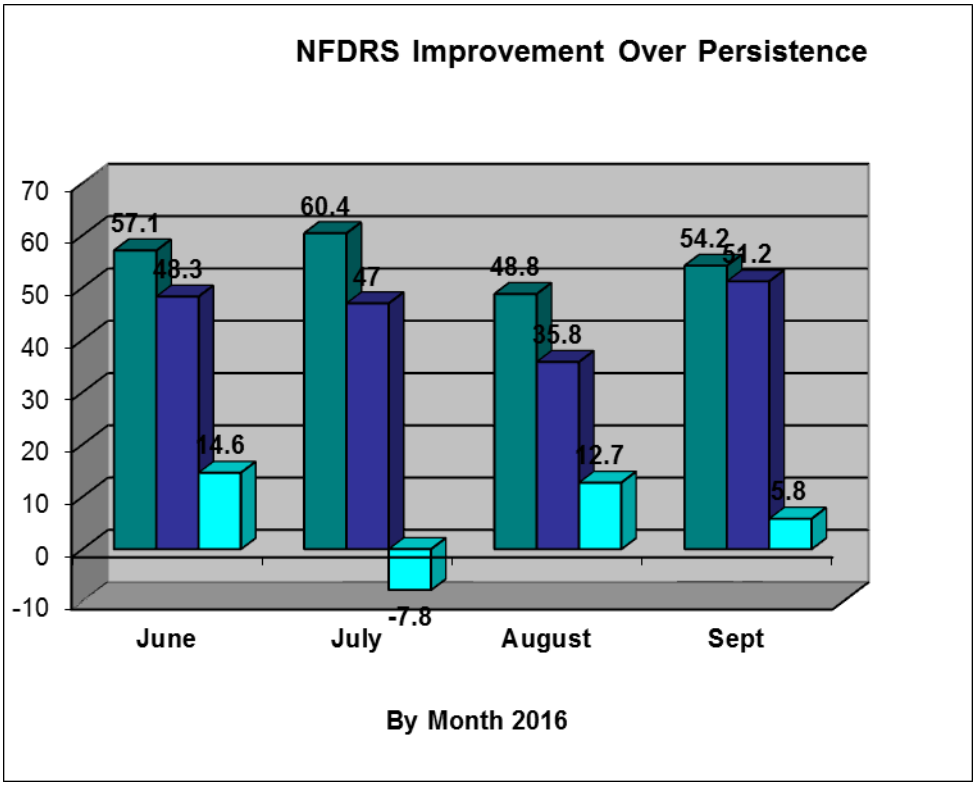
ALL WARNINGS BY ZONE

All Red Flag Warnings	673	674	676	677	680	682	684	685	686	687	101	All Zones
Warnings	9	5	3	4	1	1	4	3	3	2	3	38
Verified Warnings	8	5	3	3	1	1	4	0	2	1	2	30
Unverified Warnings	1	0	0	1	0	0	0	3	1	1	1	8
Missed Events	0	0	0	0	1	0	1	0	0	0	0	2
Total Events	8	5	3	3	2	1	5	0	2	1	2	32
Lead Time (hours)	24	25	24	24	13	26	14	7	28	12	16	17
POD	0.92	0.92	0.92	0.93	1.00	0.80	1.00	1.00	1.00	0.86	0.86	0.94
FAR	0.08	0.08	0.08	0.07	0.20	0.00	0.20	0.00	0.09	0.40	0.25	0.21
CSI	0.85	0.85	0.85	0.99	0.80	0.80	0.80	1.00	0.910	0.550	0.67	0.75

NFDRS VERIFICATION BY MONTH

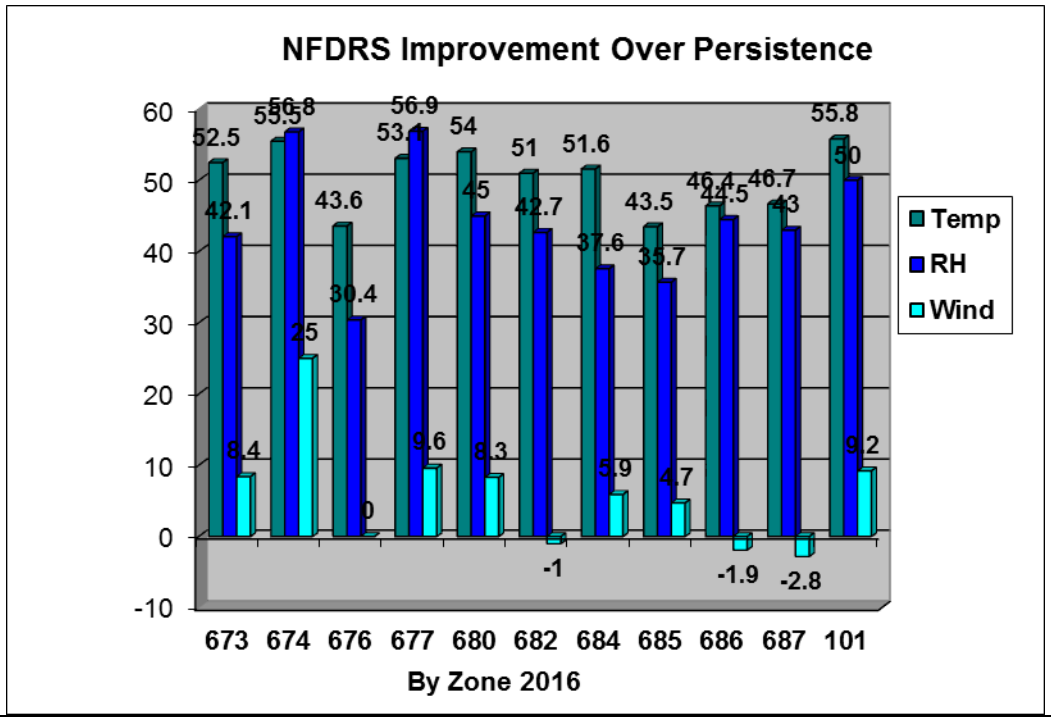
NFDRS forecast verification was accomplished by comparing the average forecast values derived from the 2 PM zone trend forecasts, with the 2 PM NFDRS Fire Weather Zone observation averages for the following day.

Temperature and Relative Humidity show very good improvement over persistence. Wind forecasts for 2016 show good improvement over persistence. Winds have improved but we are still seeing some problem areas at times in the mountains. Wind observations from the RAWS sites in the mountain zones show little day to day changes on the 1300 observations unless there is a significant wind event. Wind direction also has significant effects on winds speed, perhaps indicating placement issues or re-production. Also be aware that we made significant changes in how the NFDRS forecast is generated, from zone trend forecast to individual site forecasts.



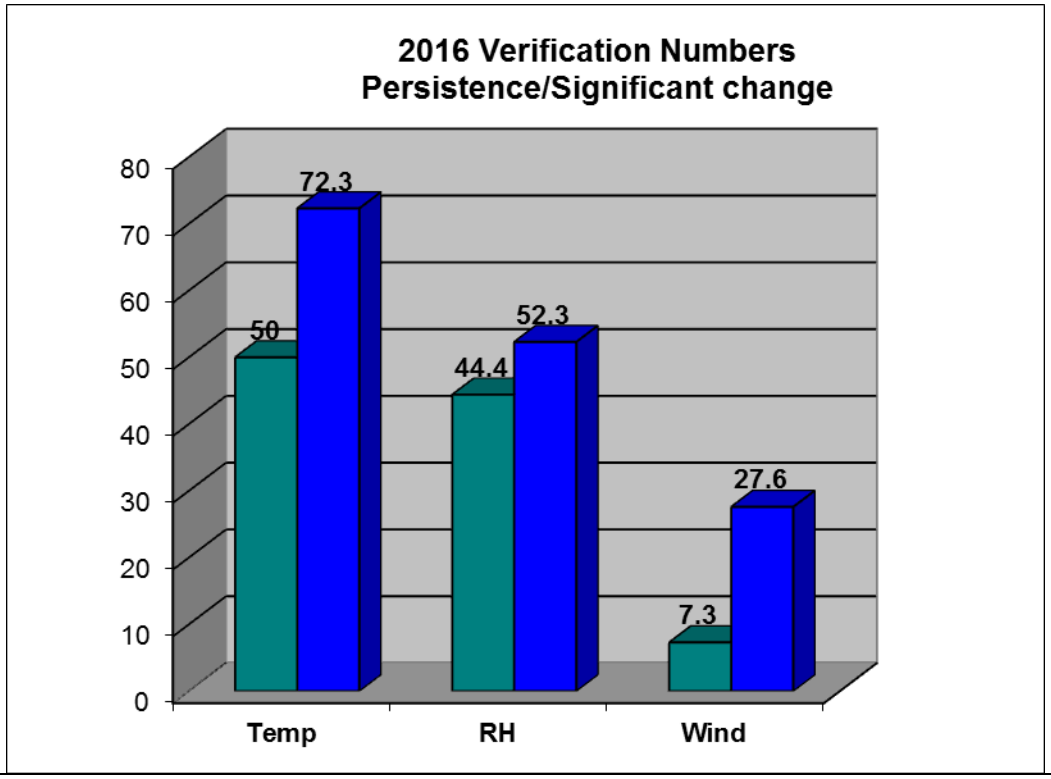
NFDRS VERIFICATION VS. PERSISTENCE

For all zones both temperatures and relative humidity forecasts show good improvement over persistence. Winds show improvement. Note winds in complex terrain are the hardest to show any improvement over persistence.



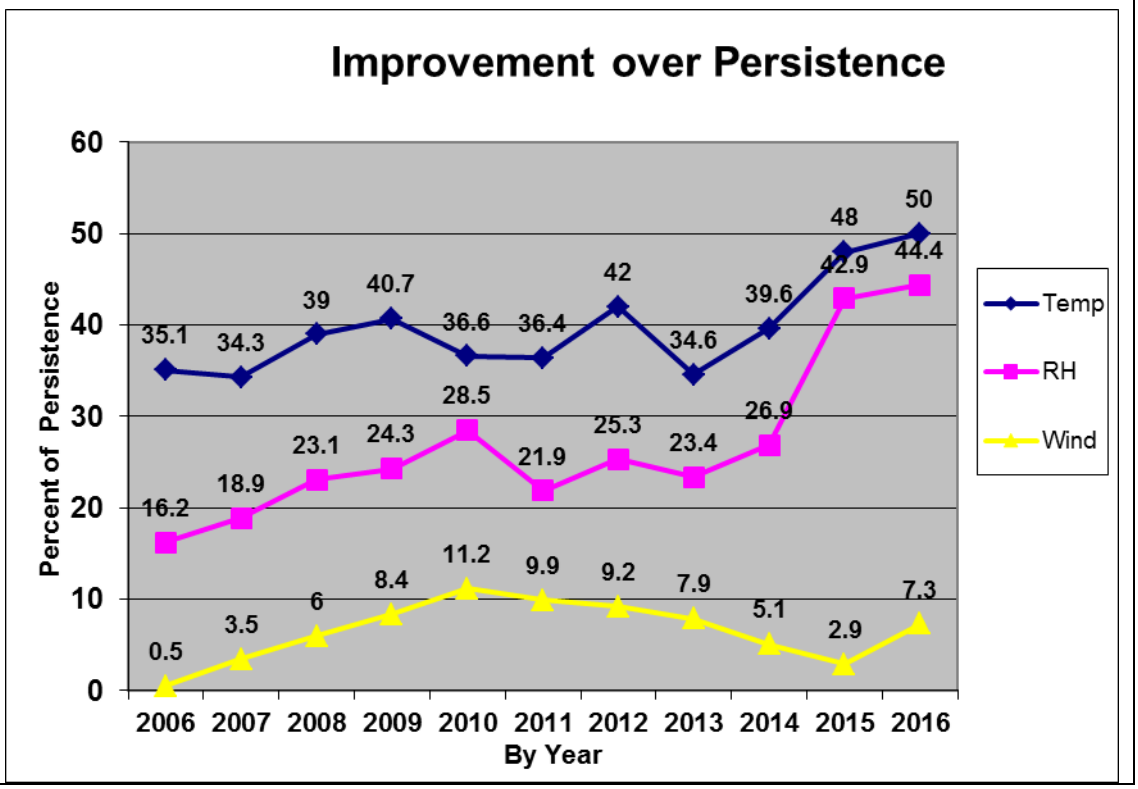
NFDRS VERIFICATION VS. PERSISTENCE AND IN BIG CHANGE EVENTS

This graphic shows the improvement over persistence from day to day compared to improvement when there are big changes. A big change equals a temperature change 10 degrees, relative humidity 5% and winds by 5 mph.



IMPROVEMENTS VS. PERSISTENCE OVER YEARS

While forecast improvement over persistence fluctuated from year to year note that the trend is upward since 2011 for Temperature and Relative Humidity. After a hiccup in 2010 and 2012 the verification show a steep increase in verification since 2013.



2016 Fire Season Fire Activity Summary

The total number of fires in 2016 was 841 which is below average and the number of acres burned of 74,932 was also below average. Below is a list of all fires of large fires by agency.

Fire	Acres Burned	Start Date	Agency
Sunland	1,912	5/29	WFS
Timm Ranch	1,358	6/8	COA
Simms Road	771	6/8	WFS
Mile Post 133	570	7/1	SES
Rocky Ford	1,951	7/9	SPD
Buck Creek	3,500	7/22	OWF
Antilon Lake	315	7/29	SES
Black Rock Road	16,025	7/30	SPD
Road 10	3,280	8/2	WFS
Kewa	1,889	8/2	COA
Lower Crab Creek	6,000	8/6	SPD
Division Road	720	8/10	MCR
Vantage	363	8/16	SES
Granite	1,030	8/16	IPNF
Attention	930	8/17	IPNF
Gleason	230	8/20	IPNF
Cayuse Mountain	18,116	8/21	SPA
Spokane Complex	6,358	8/21	NES
Hart	4,983	8/21	NES
Deep North	596	8/21	NES
Saul	550	8/21	OWF
Pickens North	760	8/24	NES
John Doe	430	8/27	PRI
Rock Creek	1,383	9/10	OWF
Elmer City	5,237	9/11	COA

Total acres for reported large fires: 79,257

Agency	Lightning Caused Fires	Acres Burned	Human Caused Fires	Acres Burned	Total Fires	Total Acres Burned
SE DNR	12	3	115	2,376	127	2,379
NE DNR	46	33	373	11,319		11,352
Colville BIA	33	1,443	31	7,145		8,588
Okanogan-Wenatchee NF	18	3,500	51	1,933		5,433
Colville NF	4	16	3	5		21
Idaho Panhandle USFS/IDL	40	2,338	82	618		2,956
FWS	0	0	1	720		720
BLM	2	31	17	24,791		24,822
Spokane BIA	1	1	9	18,209		18,210
NPS			4	451		451
Total	156		685		841	74,932

Fire Data of Customer Agencies – 2016

Range 12 Fire = 176,600 acres (not included since it was in PDT area)

Fire Data by Year: 1970-2016

YEAR	TOTAL FIRES	LIGHTNING CAUSED FIRES	TOTAL ACRES BURNED
1970	1,303	488	215,037
1971	606	127	3,902
1972	747	253	2,111
1973	1,079	123	11,223
1974*	1,103	238	9,466
1975	953	337	4,807
1976	740	117	32,272
1977	983	591	16,342
1978	790	339	2,361
1979	1,263	446	17,090
1980	613	243	3,465
1981	930	482	16,894
1982	910	368	5,776
1983	595	176	2,453
1984	879	406	5,757
1985	1,112	355	71,488
1986	865	295	9,727
1987	1,057	348	18,214
1988	689	84	89,140
1989	1,088	399	14,259
1990	1,203	583	15,324
1991	1,080	430	47,928
1992	959	368	33,819
1993**	655	186	3,295
1994	1,433	648	260,245
1995	792	211	4,002
1996	739	205	35,375
1997	467	247	5,283
1998	969	439	50,943
1999	951	283	13,128
2000***	827	435	259,024
2001	953	507	182,468
2002	1,157	465	70,814
2003	1,027	416	147,130
2004	1,314	819	86,705
2005	807	217	34,023
2006	1,298	542	321,561
2007	940	284	88,598
2008	1,078	471	77,769
2009	1,382	872	29,862
2010	758	302	25,553
2011	552	107	13,137
2012	1,019	487	238,645
2013	687	396	103,496
2014	1,176	552	367,199
2015	1,372	564	913,430
2016	841	156	74,932

Spokane IA not included before 1993
Northern Idaho District added in 2000

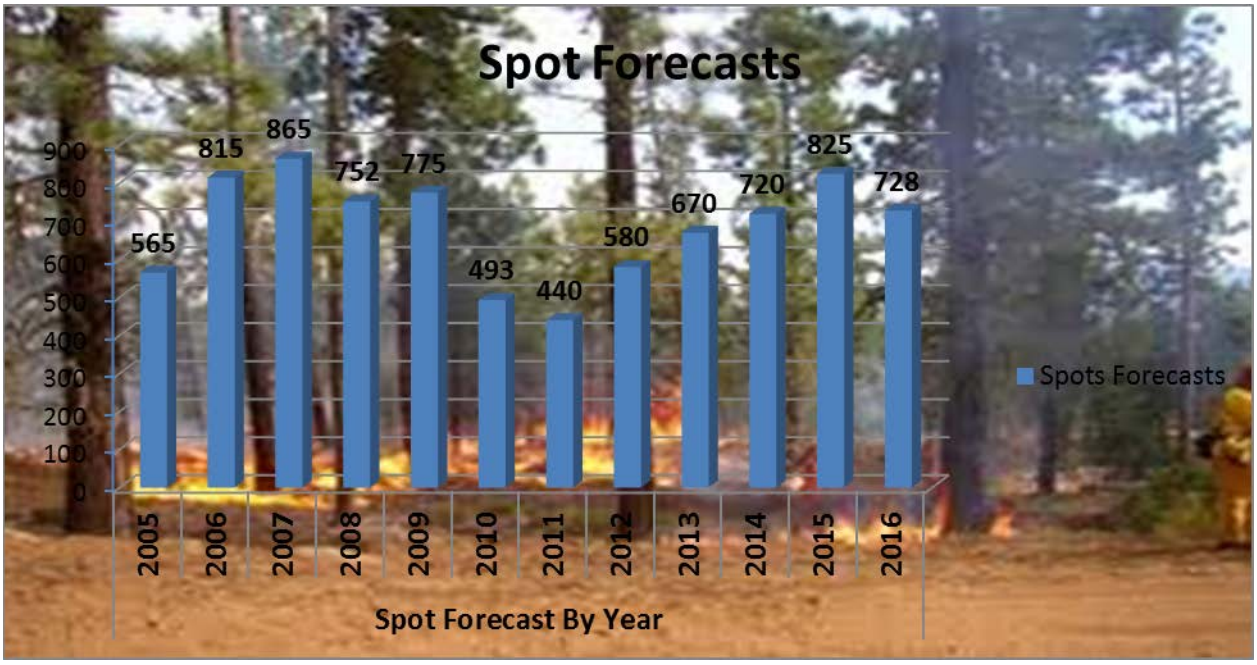
10 year averages: Fires 970

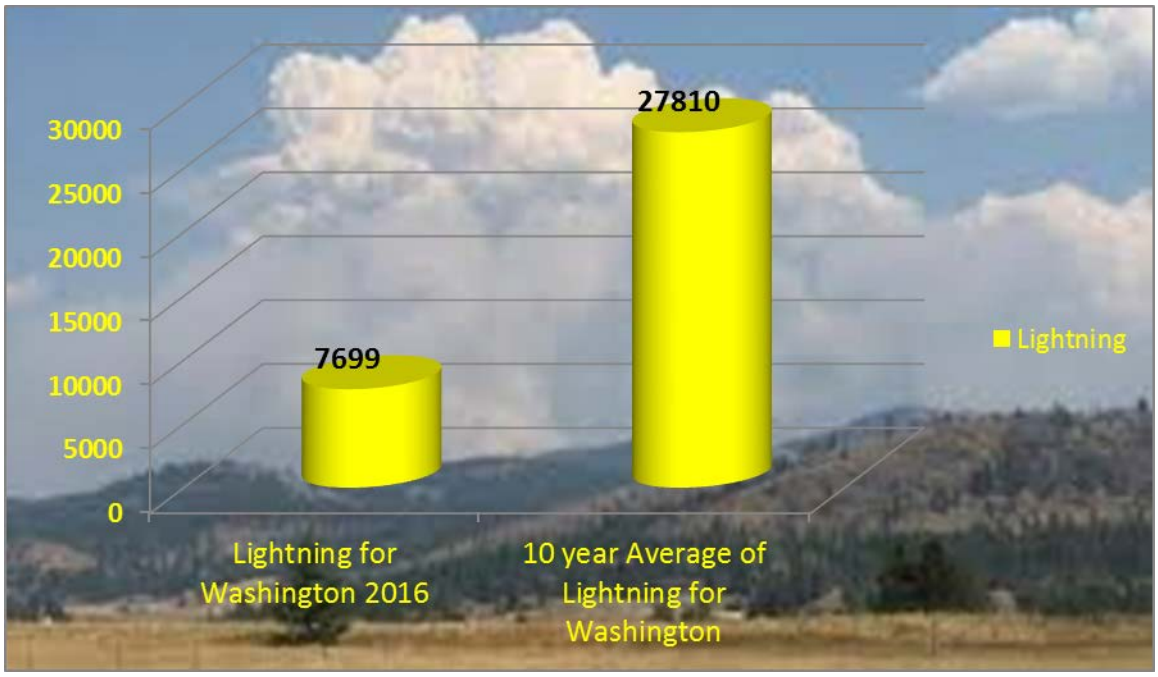
10 year total acre average (excluding 2015): 129,984

OPERATIONAL SUMMARY OF THE 2016 FIRE SEASON

Fire weather forecast support began April 5th with one forecast per day. Full service fire weather forecast support began May 16th and continued until October 28th. NFDRS trend forecasts began May 9th and ended Oct 15th This season, the WFO Spokane Fire Weather Program issued a total of 728 spot forecasts for management planned activities, wildfires, and wildfire use fires, search and rescue and hazmat. This spot forecast total is 97 less than more than in 2015 and likely because of the wet October.

The Internet spot forecast request system continues to offer land management agencies rapid turn around times for spot forecast requests with an average time of 30 minutes. WFO Spokane again hosted a daily internet briefing through the peak fire season. This is an excellent opportunity for the weather forecasters to share their thoughts with the land managers and receive feedback of forecasts and fuel conditions.





IMET & Dates Dispatched	Incident Name and Location	Incident Team/FBAN
Tobin 7/25-8/10/2016	Pioneer Fire	Lund – Type 1 FBAN Ziel
Haner 7/31-8/2/2016	Range 12 Fire	D Johnson – PNW 8 Type 2 - Jim Hampton/Steve MacDonald (T)
Wolf 8/22-30/2016	Deep North Fire	Ciraulo PNW 10 Type 2 - FBAN Owensby
Messick 8/21-28/2016	Cayuse Mountain Fire	Goff PNW 9 Type 2 FBAN Kelly Allen
Carter 8/9-8/26/2016	Beaver Creek/Broadway	Houseman NIMO – FBAN Boyd Lebeda
Fox 8/21-8/28/2016	Spokane Complex	Rabe PNW 11 Type 2 FBAN Strand

Training	Dates and Location	Instructor/Attend
IMET Training	3/09-10/2016 Spokane WA	Carter/Fox/Wolf/Tobin
IMET CEE	3/13-19/2016 Boise ID	Tobin/Wolf
Region 6 Type 2 meeting	3/28-29/2016 Vancouver WA	Tobin
Type 2/3 team meeting	4/14/2016 Tri-Cities WA	Tobin
Seasonal Outlook	4/20/2016 Coeur d'Alene ID	Carter
Region 6 GACC	4/20-21/2016 Portland OR	Tobin
S-290	5/3-4/2016 Chelan WA	Tobin
Seasonal Outlook	5/14/2016 Spokane WA	Fugazzi
DNR Refresher	5/17/2016 Colville WA	Tobin
DNR/USFS Outlook	5/19/2016 Colville WA	Tobin
Type, 3,4,5 Seasonal Outlook	5/20/2016 CDA ID	Carter
Award Ceremony	5/24/2016 Silver Springs MD	Tobin
Okanogan County Seasonal Outlook	5/26/2016 Okanogan WA	Wolf
Large Fire Interagency Meeting	6/2/2016 Cle Elum WA	Carter
Latah County Fire Outlook	6/8/2016 Moscow ID	Fox
S-290	6/13-14/2016 CDA ID	Fox
Central Panhandle assessment/Spot training	6/16/2016 Webinar	Carter
CWICC Spot/Zone	6/16/2016 Wenatche WA	Tobin
S-290 E WA Fire Academy	6/18-19/2016 Deer Park WA	Tobin/Wolf