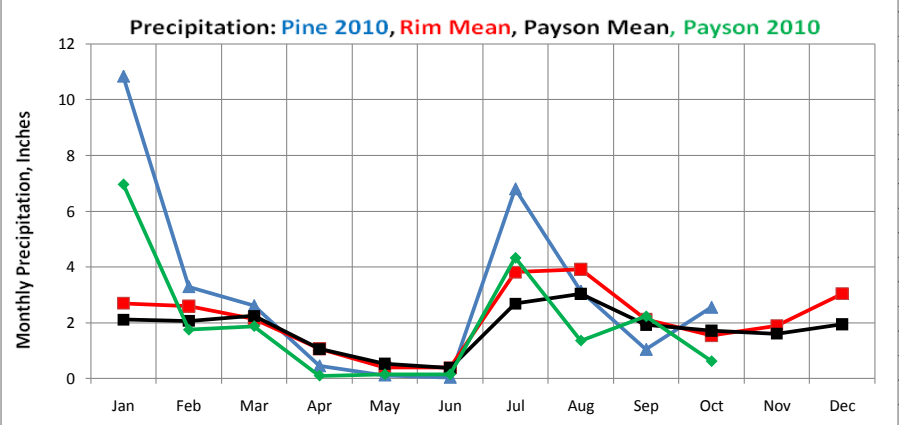


October & Annual Summary for 2010, Revised NOAA Report for Pine Home Station											Rim Monthly Precipitation, inches		Compare				
DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	RAIN	HIGH WIND SPEED	TIME	DOM DIR		Pine Sta ▲ Actual 2010	Rim Mean ■ 3 Stations	Payson Mean ■ NWS 1952-2007	Payson Sta ◆ Actual 2010	AZMET Actual 2011	PaysonRAWS Actual 2011	Webber Crk Actual 2011
1	73.5	88	2:15p	59.9	6:45a	0	12	10:15a	E	Jan	10.84	2.7	2.11	6.97			
2	70.6	88	1:45p	57.5	6:15a	0.08	15	4:30p	SSW	Feb	3.29	2.6	2.07	1.75			
3	64.6	80.1	1:45p	51.8	7:00a	0.01	14	2:00p	SSW	Mar	2.61	2.14	2.25	1.88			
4	59.3	76.2	12:45p	50.6	6:15a	0.3	17	5:15p	S	Apr	0.45	1.07	1.06	0.1			
5	55.5	63.7	1:00p	51.8	12:15a	0.95	17	11:15a	E	May	0.12	0.41	0.53	0.15			
6	59.1	68.9	1:30p	49.7	2:45a	0.46	22	1:00p	SSW	Jun	0.04	0.39	0.38	0.15			
7	58.6	69.7	1:45p	45.2	12:00m	0	20	11:00a	SSW	Jul	6.8	3.81	2.69	4.33			
8	53.7	71.3	2:45p	40.6	6:45a	0	9	1:45p	NNE	Aug	3.13	3.92	3.04	1.36			
9	59.4	73.8	2:15p	42.9	4:15a	0	16	11:00p	N	Sep	1.04	2.12	1.92	2.23			
10	61.5	71.4	2:15p	53.7	7:30p	0	22	12:45a	N	Oct	2.55	1.55	1.72	0.62	1.78	1.76	1.58
11	61.9	75.3	2:15p	47.5	7:45a	0	14	1:45a	N	Nov		1.90	1.61				
12	66	77.3	2:15p	52.8	5:15a	0	11	11:15a	N	Dec		3.05	1.94				
13	67.1	78.7	1:45p	56.6	8:45p	0	13	9:15a	ENE	Total	30.87	25.64	21.31	19.54			
14	65.7	77.7	1:15p	53.6	12:00m	0	14	5:00a	NE				provisional data				
15	60.1	78.3	12:45p	51.6	12:00m	0	14	2:00p	NE								
16	57	75.9	1:00p	46.7	7:30a	0.22	16	3:45p	NE								
17	58	70.9	2:30p	48.5	3:30a	0	10	1:00p	SSW								
18	57.5	69.4	2:45p	48.8	4:00a	0	14	2:00p	SSW								
19	57.3	71.2	1:15p	47.3	2:15a	0	15	11:45a	SSW								
20	53.2	64.2	2:15p	44.8	12:00m	0.28	12	12:00p	SSW								
21	45.8	52.3	1:00p	40.9	11:00p	0.04	10	10:45a	SSW								
22	46.6	51.6	1:00p	43	12:15a	0.19	10	10:45a	SSW								
23	48.7	57.5	1:30p	41.5	12:00m	0	10	1:30p	SSW								
24	48.6	61.7	1:45p	38.7	6:30a	0.01	10	1:00p	SSW								
25	49.7	54.4	4:30p	42.8	1:30a	0.01	9	10:45a	SSW								
26	46.6	60.4	12:45p	32.5	7:15a	0	12	12:30p	SSW								
27	48.7	59.9	2:00p	39.2	12:30a	0	14	8:00a	NE								
28	56.4	70.8	2:45p	41.3	2:30a	0	14	12:15p	SSW								
29	57.3	73.3	2:00p	43.3	6:00a	0	12	11:45a	SSW								
30	51.7	67	12:45p	40.6	12:00m	0	22	2:00p	SSW								
31	42.6	59.3	10:45a	37.9	6:30a	0	6	9:30a	ESE								
Summary	56.8	88		32.5		2.55	22		SSW								



The NWS--NOAA report of the extreme Oct. 6th storm (<http://www.wrh.noaa.gov/fgz/News/06Oct2010tor/06Oct2010.html>) is quoted here: " A major severe weather event struck northern Arizona early on Wednesday, October 6, 2010. With at least 8 confirmed tornadoes, this event will go down in history as the most tornadoes to strike the state in a single day. Not only was the number of tornadoes impressive, but several of the tornadoes were damaging and long tracked events. One of the tornadoes had a nearly continuous path exceeding 30 miles. On October 5th (the day prior to the tornado outbreak), a strong low pressure system in southern California forced strong southerly winds across the state, allowing rich moisture to move northward into the state from Mexico. Skies across much of northern Arizona were mostly cloudy, however, skies were clear across the southern half of the state. As the deserts warmed during afternoon, the atmosphere became very unstable and storms erupted across the state, most notably with several severe storms striking the Phoenix metro area. These storms continued to develop after nightfall and race northwards across northern Arizona. As the early morning progressed, more storms developed and moved quickly northward, becoming supercells with strong rotational signatures on radar. The low pressure system driving the thunderstorm activity was not moving significantly, and remained west of the Arizona border. The strong southerly flow, and atmospheric forcing in place caused severe and tornadic storms to continually redevelop over the same areas (a highly unusual event!). The 12z (5 AM MST) weather balloon launch from Belmont indicated that despite being fairly cool with surface temperatures near 50F, the atmosphere was quite unstable due to the very cold temperatures aloft. Strong wind shear was present in the profile, causing the storms which formed to rotate, and engender the tornadic production. The very cold temperatures in the profile (-14C, or 7F at around 19,000 ft) aided in hail production within the storms. By mid-morning, strong storms continued across the Interstate-17 corridor northward towards Utah, with new development across the little Colorado River Valley east of Flagstaff, and south of Tuba City. The lead shortwave forcing the thunderstorm activity was now moving through the state, pushing the strongest activity north and eastward, giving the Prescott and Belmont areas a much needed break, while putting Flagstaff and areas eastward under a greater threat. In summary, it was the combination of extremely strong vertical wind shear, instability, and the vertical forcing of the lead shortwave that produced this severe weather outbreak. Due to the strength of the wind shear and the associated rapid motion of storm cells, many of the tornadoes had long, extensive path lengths. Given the magnitude and intensity of this outbreak, it is certain this event will go down in history as one of the most significant tornado outbreaks to strike the state of Arizona since record keeping began. "

Note the influence of this storm at Pine Home Station with rain from the 4th through the 6th and strong shifting winds. October's total rainfall exceeded the average by 1 inch. Although the NWS Payson Station recorded a total of only 0.62", U of AZ station (AZMET) at Green Valley Park totalled 1.78" and the Payson US Forest Service station (RAWS) 1.76", just above average for October in Payson.