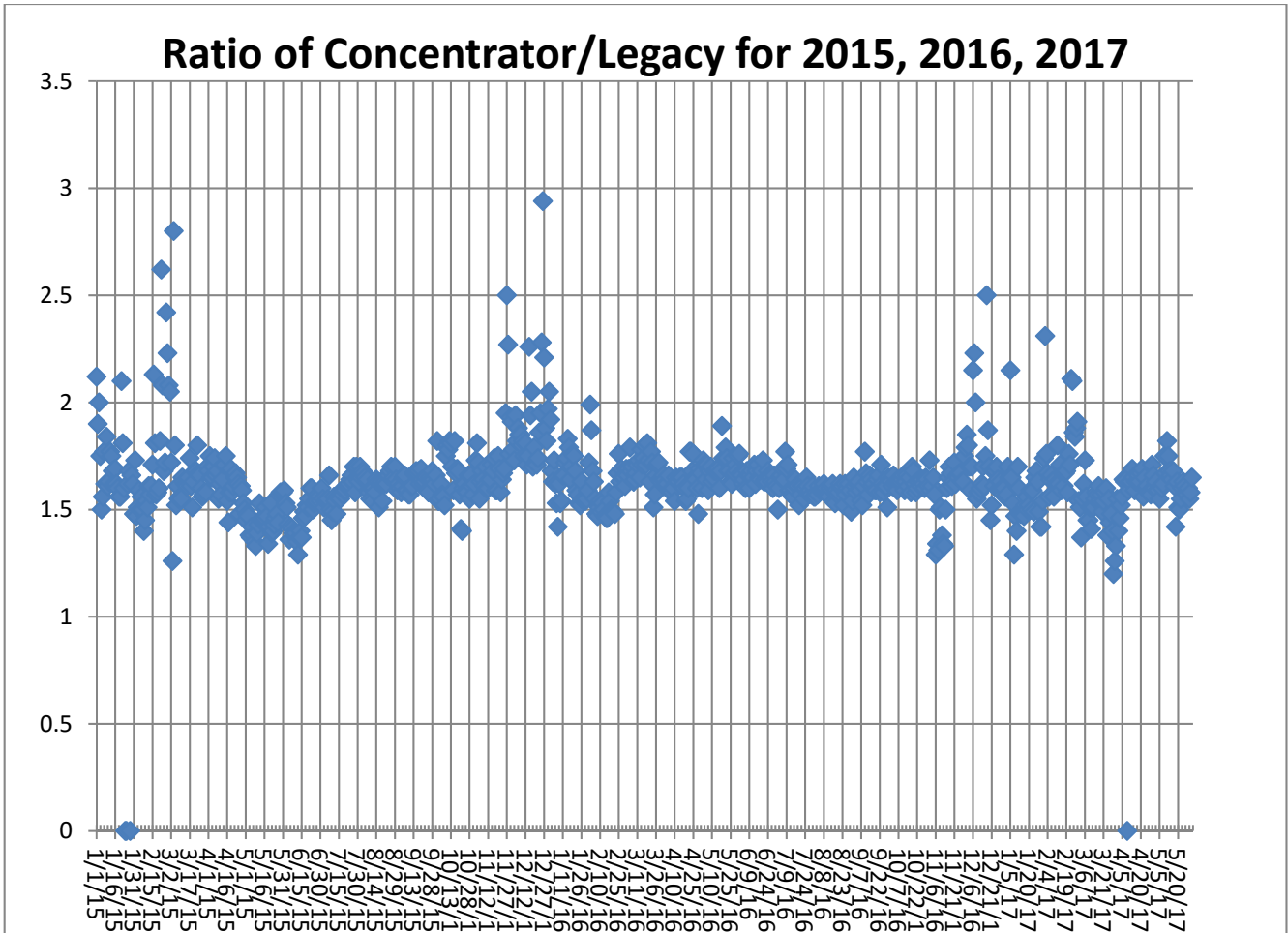




The daily ratio of concentrator to legacy reports is shown.



**Figure 1. Daily Ratio of Concentrator Reports to Legacy Reports**

The ratio becomes more volatile in the cold months as the Blue Mountain repeater has problems with legacy ALERT reporting when the temperature drops below zero. Volatility in the ratio was experienced in March and early April as issues with the radio repeater network and the B2010 decoder are evident.

## A. Continuous Operation of Base Receiver/Decoder

The base station was in continuous operation for the entire month. Data was collected on a continuous basis for a total of 744 hours of operation. Outages of less than one hour are not identified.

## B. Specific Issues Identified

Performance of the following sensors (Table 3) was questionable this month.

**Table 3. Sensors with Poor Performance Characteristics**

Sensor ID	Description	Comments
2790	W. Cherry Creek - WX	Poor timer and poor event performance
2270	Cub Cr Below Blue	Sending unknown IDs and large amount of invalid stage
3020	West Creek WX	ALERT2 station with drifting clock (negative latency)
5810	Stump Bump	Poor timer and event performance
0, 1, 2	Unknown	Unknown IDS transmitted on legacy ALERT

## C. ALERT2 Repeater Loading

The District's ALERT2 architecture utilizes 5 repeaters with a single transmit frequency (170.300 MHz) to Diamond Hill. The repeaters utilize a 20 second frame where each repeater is allocated a slot of specific size and an offset within the frame. The slot allocated to each repeater is sized appropriately to accommodate the total number of existing and future remote sites routed through that repeater. Each repeater is shown along with its designated slot (Table 4). Currently there is no pass-listing for the ALERT2 repeaters. Any remote ALERT2 site can be received by all repeaters and re-broadcast to the base except for West Creek which has an input frequency unique to Douglas County.

**Table 4. ALERT2 Repeater Architecture**

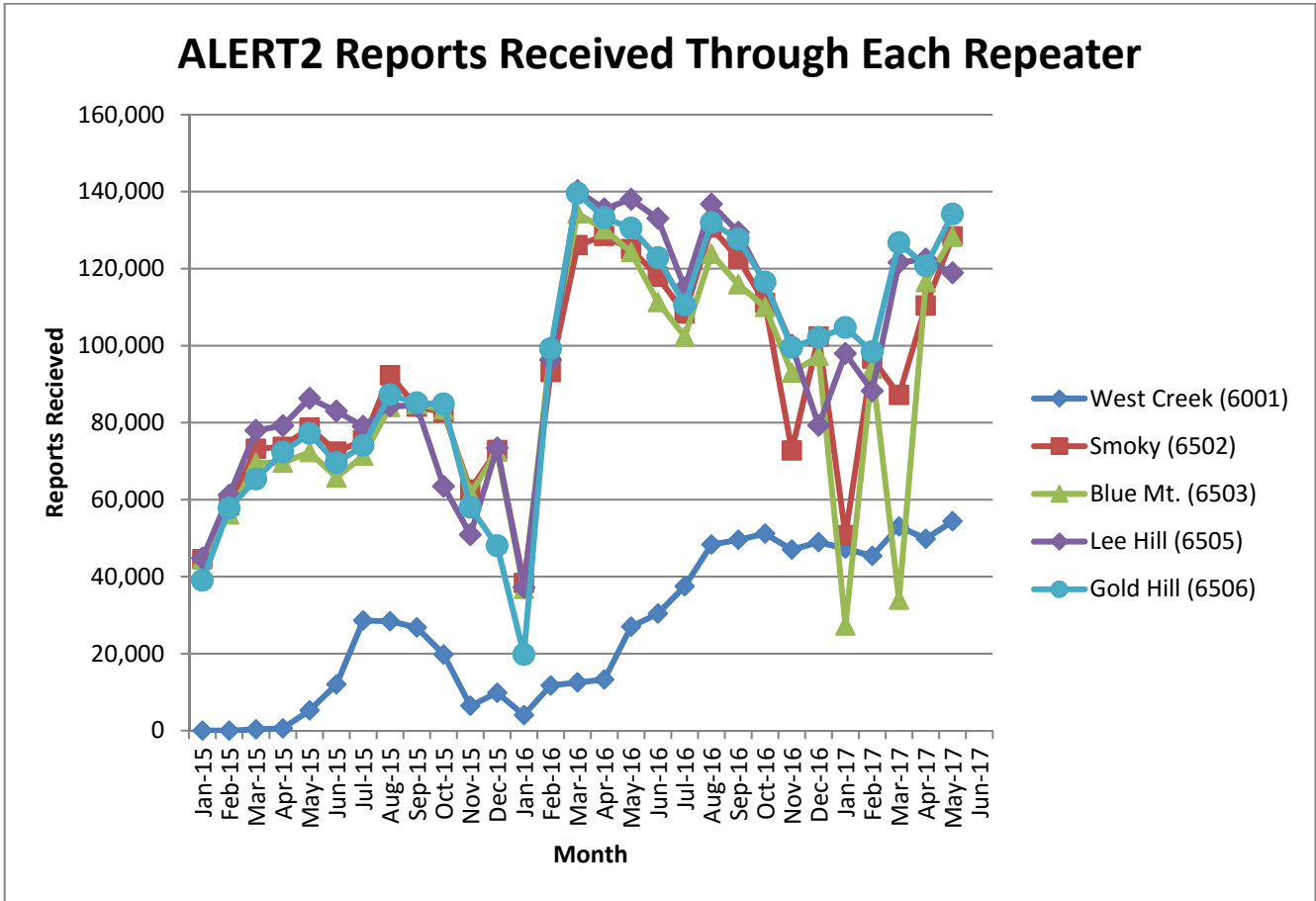
Repeater	Slot Size (sec)	Slot Offset (sec)	Source Address	ALERT2 Input Frequency (MHz)	ALERT2 Output Frequency (MHz) – received at Diamond Hill
West Creek	2	0	6001	169.425	170.300
Smoky	3	2	6502	169.525	170.300
Blue Mt.	4	5	6503	169.525	170.300
Lee Hill	3	9	6505	169.525	170.300
Gold Hill	3	12	6506	169.525	170.300
Magnolia	5	15	6507		170.300
Frame Size	20				

The following tables summarize the total number of reports received through each repeater (Table 5). This helps to quantify repeater loading for the ALERT2 backbone.

**Table 5. ALERT2 Reports Received through Each Repeater (Only A2 Self Reports)**

Month-Yr	West Creek (6001)	Smoky (6502)	Blue Mt. (6503)	Lee Hill (6505)	Gold Hill (6506)	TOTAL
Jan-15	0	44,501	44,636	44,783	39,007	172,927
Feb-15	0	58,543	56,150	61,160	57,764	233,617
Mar-15	346	73,198	69,604	77,968	65,323	286,439
Apr-15	595	73,711	69,568	79,215	72,310	295,399
May-15	5,259	78,694	72,340	86,297	77,174	319,764
June-15	11,987	72,449	65,742	82,998	69,570	302,746
July-15	28,595	75,379	71,394	79,026	74,041	328,435
Aug-15	28,409	92,299	84,057	84,363	87,211	376,339
Sep-15	26,809	84,143	84,776	84,289	85,123	365,140
Oct-15	19,775	82,683	83,390	63,475**	84,825	334,148
Nov-15	6,438	62,615	61,477	50,888	58,004	239,422
Dec-15	9,835	72,886	72,465	73,431	47,996	276,613
Jan-16	4,034	38,348	36,826	37,168	19,768	138,160
Feb-16	11,732	93,120	99,206	96,284	99,188	399,530
Mar-16	12,533	126,123	134,329	140,226	139,536	552,747
Apr-16	13,262	128,473	130,223	135,499	133,197	540,654
May-16	27,002	125,098	124,280	138,033	130,513	544,926
Jun-16	30,405	117,877	111,309	133,036	122,798	515,425
Jul-16	37,492	108,334	102,335	115,028	110,577	473,766
Aug-16	48,323	130,666	123,827	136,746	131,957	571,519
Sep-16	49,555	122,625	115,898	129,454	127,606	545,138
Oct-16	51,170	111,105	110,038	116,087	116,489	504,889
Nov-2016	47,039	72,761	92,941	100,083	99,508	412,332
Dec-2016	48,946	102,329	97,321	79,274	102,097	429,967
Jan-2017	47,286	50,748**	27,307**	97,947	104,689	327,977
Feb-2017	45,366	96,629	94,065	88,239	98,411	422,710
Mar-2017	53,021	87,160**	33,983**	121,578	126,722	422,464
Apr-2017	49,833	110,418	116,486	122,506	120,727	519,970
May-2017	54,375	128,362	128,310	118,908	134,173	564,128

\*\* - The number of reports coming through these repeaters declined significantly



**Figure 2. Reports received through each repeater (ALERT2 Only)**

A convenient mechanism to track repeater performance throughout the year is to monitor total ALERT2 reports passed by each repeater. In general, each of the primary repeaters in the District process an equivalent number of ALERT2 reports because pass/block filtering is not being used. Several months are evident where the throughput of one repeater is not consistent with the other three.

In January of 2017 the ALERT2 reports received through Blue Mountain and through Smoky Hill showed a significant decrease. There may be a problem at these repeaters or it is possible that pass/block lists have been implemented.

In March of 2017 the ALERT2 reports received through Blue Mountain and through Smoky Hill showed a significant decrease. There may be a problem at these repeaters.

The following tables summarize the system-wide latency of ALERT2 self-reports (Table 6 and Table 7).

**Table 6. System-Wide Latency of ALERT2 Self-Reports (seconds)**

Statistical Parameter	Value (sec)	Comments
Mean	56.20	The average time it took a report from the field to reach the base
Minimum	-23	The minimum time it took for a report to go from the field to the base
Maximum	43,177	The maximum time it took for a report to go from the field to the base

**Table 7. Summary of ALERT2 System-Wide Latency (seconds)**

Statistical Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	53.1	51.39	55.86	61.18	56.20							
Minimum	-29	-23	-23	-4	-23							
Maximum	286	12,946	43,177	43,197	43,177							
Station with Max Latency												

The negative latencies are observed only from the station West Creek WX. This is a HydroLynx transmitter. It is likely that the clock on this transmitter is drifting badly. A new GPS chip and EPROM are soon to be installed to help this station.

The West Creek Repeater (6001) experienced a significant clock drift beginning on March 28, extending through March 29. WET field staff did manage to visit the repeater on March 29 to reset the repeater clock.

## D. Rain Sensor Timer Reporting Summary

The following analysis assumes that each legacy rain sensor has a 12-hour timer-reporting interval and each A2 rain sensor has a 1-hour timer-reporting interval. The worst performing rain sensors for the month are summarized (Table 8).

**Table 8. Monthly Summary of Sensors with Poor Timer Performance (Sensor ID)**

Jan*	Feb*	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*
2790	2790	4470	2790	2790							
5720	4100	100150	2800	3090							
4510	4330	2360	4100	5810							
100260	4040	2970	3050	1360							
4870	4270	2270	920	2330							
5940	4510	2350	1710	100270							

\*- Only sensors that operate year-round (weather stations and stations in Boulder County) are included for the analysis in these months.

Sensors identified as having poor timer performance in multiple months are shaded with unique colors. A developing trend can thus be identified from the color shading as the year progresses.

## III. Rain Sensor Event Reporting Summary

### A. District-Wide Total Tip/Count Statistics

The incrementing reports from all 1-mm rain sensors were analyzed to quantify the District-wide statistical total monthly tip summary (Table 9). For the months of January, February, March, October, November and December only the stations that operate year-round are included in the rain event analysis. These stations include all weather stations and the stations in Boulder County.

**Table 9. District-Wide Total Tip/Count Statistical Summary**

Statistical Parameter	Value	Comments
Mean	99.60	Only the 1-mm rain sensors were included in the analysis
Median	99	Only the 1-mm rain sensors were included in the analysis
Standard deviation	30.49	Only the 1-mm rain sensors were included in the analysis
Mean plus three standard deviations	191.05	Only the 1-mm rain sensors were included in the analysis
Mean minus two standard deviations	38.62	Only the 1-mm rain sensors were included in the analysis
Minimum total count	5	Sanderson at Xavier (1340)
Maximum total count	209	Red Garden (4030)
Sensors showing <b>NO</b> rain for the month		
Sensors greater than 3 SD (over reporting)	1	Red Garden (4030)

## B. Monthly Average Tip/Count Summary

A monthly summary of the District-wide mean total tip/count is presented (Table 10).

**Table 10. Monthly Summary of District-Wide Mean Total 1-mm Tip/Count**

Year	Jan*	Feb*	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*	Ave
2006	4.62	5.92	18.39	20.47	19.44	13.75	74.03	46.89	24.17	41.13	5.04	16.45	<b>24.19</b>
2007	11.56	5.40	29.75	65.03	68.30	15.87	36.20	46.38	22.13	29.50	6.54	11.29	<b>29.00</b>
2008	4.05	7.38	12.26	20.57	54.82	26.06	16.43	90.20	37.54	19.59	2.82	9.24	<b>25.08</b>
2009	6.33	3.11	11.37	59.26	63.45	68.00	65.00	20.00	27.29	30.24	11.00	5.60	<b>30.89</b>
2010	5.97	11.90	32.54	70.57	39.63	56.04	50.23	31.01	4.18	18.31	8.30	3.31	<b>27.67</b>
2011	6.78	7.45	7.54	33.94	92.68	39.42	90.87	18.25	37.67	25.73	10.41	13.59	<b>32.03</b>
2012	4.89	13.57	2.35	30.17	38.97	19.35	73.03	11.31	48.81	22.32	2.98	4.18	<b>22.66</b>
2013	2.96	14.31	21.86	35.96	45.87	16.39	52.33	50.63	229.74	29.64	5.86	4.00	<b>42.46</b>
2014	6.88	11.86	25.91	29.30	77.30	29.16	99.73	43.59	50.96	29.26	13.36	8.11	<b>35.45</b>
2015	9.88	24.42	20.78	69.75	143.07	86.93	54.59	29.95	7.16	53.28	22.08	10.80	<b>44.39</b>
2016	4.68	9.91	32.30	52.10	49.40	40.50	24.20	31.00	8.86	7.51	8.56	8.74	<b>23.23</b>
2017	13.3	5.84	27.70	39.10	99.60								
<b>Ave</b>	<b>6.83</b>	<b>10.09</b>	<b>20.23</b>	<b>43.85</b>	<b>66.04</b>	<b>34.29</b>	<b>53.05</b>	<b>34.93</b>	<b>41.54</b>	<b>25.54</b>	<b>8.08</b>	<b>7.94</b>	<b>28.09</b>

\*- Only sensors that operate year-round (weather stations and stations in Boulder County) are included for the analysis in these months.

## C. Sensors with a Jump of Six or More in the Sequential Count

No sensors experienced a large jump in the sequential tip count (Table 11).

**Table 11. Sensors with a Jump of 6 or More in Sequential Count**

Sensor Description	Sensor ID	Comment
W. Cherry Creek - WX	2790	All >6 reports were breaks in the data
Hansen	4330	All >6 reports were breaks in the data
Stump Bump	5810	All >6 reports were breaks in the data
Big Dry Crk at Heritage Regional Pk	3090	All >6 reports were breaks in the data

## D. Sensor-by-Sensor Incrementing Count Summary

The system-wide reception rate of incrementing, 1-mm tip reports for the month was approximately 95 percent. A total of 20,141 incrementing reports were received and a total of 21,192 reports were expected. The total loss of incrementing reports for the month was approximately 5 percent. Those sensors with the worst event transmission performance are summarized (Table 12).

**Table 12. Monthly Summary of Sensors with the Worst Performance**

Jan*	Feb*	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*
2790	4330	2790	2790	2790							
4870	750	1620	4270	4330							
1920	2790	2940	4100	5810							
3010	100260	2750	2330	3090							
4510	4270	2980	920	5900							
4330	4490	5900	1710	1500							

\*-Only sensors that are operational year-round (weather stations and stations in Boulder County) are included for the analysis in these months.

Sensors identified as having poor event performance in multiple months are shaded with unique colors. A developing trend can thus be identified from the color shading as the year progresses.



## IV. Unknown Device Analysis – Received Data Log

The ALERT IDs present in the audio signal received by the decoder are compared against a list of “active” device IDs that are defined within NovaStar. Those IDs received by the decoder that are not defined within NovaStar are considered to be “unknown” and may be the result of radio noise or problems with the telemetry system. The reception of “unknown” device reports for the month is summarized (Table 13).

**Table 13. Summary of Unknown IDs**

Description	Concentrator	Legacy	A2
Total number of unknown IDs (IDs without a device definition)	693	651	0
Total reports from unknown IDs	2,693	2,987	0
Unknown IDs with only a single received report (potential noise)	480	477	0
Total reports from all IDs – RecData Log entire month	464,402	287,868	564,128
Unknown reports as a fraction of total reports	0.58%	1.04%	0.00%

The total number of reports from unknown sensors is very small relative to the total reports received for the month. Shown below (Table 14) are the total reports received from unknown sensor IDs for each month of the year.

**Table 14. Monthly Summary of Total Reports from Unknown IDs (Concentrator)**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	1,220	1,474	1,276	1,174	721	5,707	610	1,738	442	533	2,857	6,396
2011	1,231	2,165	3,065	1,254	2,051	439	489	456	191	683	747	861
2012	692	750	1,575	977	5,469	11,016	453	683	774	2,657	3,854	5,466
2013	4,265	994	1,100	2,589	3,623	6,973	5,230	1,070	4,429	781	13,459	1,213
2014	870	4,284	2,399	2,104	25,746	1,832	3,983	268	369	448	470	1,099
2015	542	9,137	1,524	1,007	946	699	1,179	1,860	1,153	1,063	600	619
2016	323	1,241	3,085	3,586	1,268	945	1,408	2,029	1,413	753	617	879
2017	11,875	844	1,207	3,700	2,693							

The fraction of reports from unknown sensors relative to the total number of reports is shown below (Table 15).

**Table 15. Monthly Percent of Unknown Sensor Reports (Concentrator)**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	0.42%	0.56%	0.38%	0.32%	0.20%	1.61%	0.17%	0.49%	0.13%	0.16%	0.93%	1.88%
2011	0.39%	0.73%	0.90%	0.37%	0.58%	0.12%	0.12%	0.05%	0.12%	0.18%	0.22%	0.26%
2012	0.30%	0.25%	0.43%	0.26%	1.37%	2.74%	0.11%	0.18%	0.20%	0.72%	1.15%	1.62%
2013	1.40%	0.31%	0.29%	0.60%	0.37%	0.61%	0.82%	0.21%	0.96%	0.31%	5.37%	0.23%
2014	0.14%	0.94%	0.40%	0.34%	3.95%	0.34%	0.66%	0.03%	0.03%	0.07%	0.11%	0.26%
2015	0.15%	2.25%	0.34%	0.22%	0.19%	0.14%	0.26%	0.42%	0.29%	0.24%	0.15%	0.15%
2016	0.10%	0.30%	0.69%	0.82%	0.28%	0.22%	0.33%	0.50%	0.36%	0.18%	0.17%	0.22%
2017	3.29%	0.23%	0.31%	0.97%	0.58%							

Any month shaded in yellow has an excessive number of reports from unknown sensors.

A number of “unknown” sensors had multiple reports, which may indicate the existence of a transmitter that is sending information on an ID that is not currently defined within NovaStar. The unknown IDs with multiple reports including the number of reports received by each are shown (Table 16).

**Table 16. Reports Received by Unknown IDs**

Concentrator		Legacy ALERT		Comment
Unknown ID	Reports	Unknown ID	Reports	
2274	765	2274	721	Cub Crk Below Blue sending unknown IDs
2272	241	2272	233	Cub Crk Below Blue sending unknown IDs
2271	228	2271	227	Cub Crk Below Blue sending unknown IDs
2277	66	2277	61	Cub Crk Below Blue sending unknown IDs
2278	51	2278	49	Cub Crk Below Blue sending unknown IDs
1365	44	0,1,2	378,60,125	Legacy reports for IDs 0, 1, 2 only

## V. Sensors with Invalid Reports

The sensors below (Table 17 and Table 18) have the largest number of invalid decodes as determined by the validation process defined at the District NovaStar5 base station. These invalid reports may indicate poor radio paths (bit flip/contention errors/random decode) or validation criteria that do not match the physical installation at the site.

**Table 17. Rain Sensors with the Most Invalid Reports**

Sensor ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1530-Bear Cr. At Lowell	9	11	8	5	6							
2810-Pine Cliff Rd.	41	32	9	9	2							
3010-Wx-EPC @ 105	6	7	2	4	--							
3050-E/W Trailhead	23	18	7	5	3							
4030-Red Garden	--	10	5	--	4							
4240-Sunset	--	9	5	2	--							
4790-Wx-Button Rock	--	--	5	4	2							

**Table 18. Level Sensors with the Most Invalid Reports**

Sensor ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
413-Kelly Dam	--	--	43	3	10							
213-Leyden Confluence	--	--	17	--	--							
723-WTG above Conf Pond	--	8	0	--	--							
1483-Third Creek at DIA	--	8	4	204	2							
1523-Marston Lake North	10	8	11	9	5							
1649-SPR at 19 <sup>th</sup> Street	152	--	1	1	2							
2813-Pine Cliff Road	16	12	11	7	1							
3013-EPC@Hwy 105	3	--	4	9	10							
4383-Eldorado Springs	16	2	2	--	1							
4593-Green Ditch	--	--	16	1	2							
2273-Cub Cr below Blue	--	--	--	--	255							

## VI. Rainfall Alarms and Intensity Analysis

The following rainfall rate alarms from the Urban Drainage and Flood Control District NovaStar 5.0 Web Server were identified this month.

Point ID	Point Name	Trigger Name	Alarm Time
1700	Cherry Creek at Champa Precipitation-DN	Plains 10 minute rainfall	5/8/2017 15:18
1300	Hidden Lake Precipitation-AD	Plains 10 minute rainfall	5/8/2017 15:20
1310	Little Dry at 64th Precipitation-AD	Plains 10 minute rainfall	5/8/2017 15:26
1460	Urban Farm Precipitation	Plains 10 minute rainfall	5/8/2017 15:35
100230	Havana Pond Precipitation	Plains 10 minute rainfall	5/8/2017 15:36
100230	Havana Pond Precipitation	Plains 1 hour rainfall	5/8/2017 15:44
100410	Brantner Gulch near Syracuse Street Precipitation	Boulder County 10 minute rainfall	5/8/2017 15:55
1310	Little Dry at 64th Precipitation-AD	Plains 1 hour rainfall	5/8/2017 15:58
1700	Cherry Creek at Champa Precipitation-DN	Plains 1 hour rainfall	5/8/2017 16:01
100410	Brantner Gulch near Syracuse Street Precipitation	Boulder County 1 hour rainfall	5/8/2017 16:05
1660	SPR at Henderson Precipitation	Plains 10 minute rainfall	5/8/2017 16:13
1920	Brighton Precipitation	Plains 10 minute rainfall	5/8/2017 16:19
330	Van Bibber @ Hwy 93 Precipitation-JF	Jefferson County 10 minute rainfall	5/8/2017 17:36
100110	ETG @ Hampden Precipitation	Plains 1 hour rainfall	5/8/2017 19:18
4770	Cal-Wood Ranch Precipitation-BO	Boulder County 10 minute rainfall	5/17/2017 14:40
1570	Brighton ETO Precipitation-WE	Plains 10 minute rainfall	5/17/2017 20:47
2970	Rampart Range Road Precipitation-DG	2970 Rampart Range Road 0.2" in 30 Minutes Rainfall	5/20/2017 12:30

# General System Analysis

**Database Name** P:\A207-UDFCD-Data-Analysis\2017\05-2017\ALL\_DATA.mdb

<b>First Date in Database</b>	4/30/17 11:58 PM	<b>Total Days</b>	31.0
<b>Last Date in Database</b>	5/31/17 11:57 PM	<b>Total Hours</b>	744.0

Summarize

**Total Records Analyzed** 564,128

Records by Group	Legacy	Percent	Concentrator	Percent	ALERT2	Percent
Wind Data	88,004	31%	167,856	36%	171,363	30%
Temperature	38,608	13%	69,807	15%	70,485	12%
Relative Humidity	38,175	13%	63,237	14%	69,350	12%
Water Level	28,754	10%	33,823	7%	69,763	12%
Precipitation	23,278	8%	29,454	6%	57,924	10%
Barometric Pressure	21,457	7%	31,585	7%	1,081	0%
Battery Voltage	15,119	5%	30,673	7%	76,622	14%
Solar Radiation	11,260	4%	12,240	3%	0	0%
Fuel Temperature	6,176	2%	6,625	1%	0	0%
Fuel Moisture	6,132	2%	6,664	1%	0	0%
Soil Moisture	3,231	1%	3,298	1%	0	0%
Unknown	2,987	1%	2,693	1%	0	0%
Repeater Status Report	2,446	1%	2,020	0%	0	0%
ET-Hourly	735	0%	750	0%	0	0%
Repeater Pass List	574	0%	104	0%	0	0%
12Hr Status Report	339	0%	369	0%	2,757	0%
Not Used	274	0%	280	0%	636	0%
Handar 585 ALARM Status	134	0%	137	0%	0	0%
Water Temp	131	0%	138	0%	0	0%
ET-Daily	39	0%	39	0%	0	0%
Solar Power	10	0%	10	0%	0	0%
ALERT/A2 Testing	2	0%	3	0%	0	0%
ALERT Msgs Received	1	0%	1	0%	0	0%
Hayman Battery	1	0%	2,340	1%	0	0%
Repeater ON Count	1	0%	1	0%	0	0%
GPS Lock	0	0%	255	0%	28,240	5%
Dew Point Temperature	0	0%	0	0%	8,016	1%
Flasher Status	0	0%	0	0%	7,891	1%
<b>Total</b>	<b>287,868</b>	<b>100%</b>	<b>464,402</b>	<b>100%</b>	<b>564,128</b>	<b>100%</b>

Traffic Loading Summary	Legacy		Concentrator		ALERT2	Percent
Alert Reports	287,868		464,402		564,128	
Average Daily Traffic	9,286		14,981		17,629	
Average Hourly Traffic	387		624		735	
Median Hourly Traffic	360	hour beginning	583	hour beginning	772	hour beginning
Peak Hourly Traffic	965	May 8, 7:00 PM	1,731	May 8, 7:00 PM	1,308	May 26, 12:00 AM
2nd Max	940	May 8, 8:00 PM	1,563	May 8, 8:00 PM	1,151	May 27, 1:00 PM
3rd Max	841	May 26, 12:00 AM	1,543		1,065	
4th Max	837	May 8, 6:00 PM	1,287	May 10, 10:00 PM	1,028	May 18, 11:00 AM
5th Max	827	May 18, 2:00 AM	1,286	May 10, 8:00 PM	1,007	May 20, 1:00 PM

# Rain Timer Performance

Analyze Rain Sensors

Rain Sensors	Description	Rcv	Timer	Exp	Performance
2790	West Cherry Creek	10	12:35	62	16%
3090	A2-Highland Heritage Park	365		744	49%
5810	Stump Bump	31	11:55	62	50%
1360	Denver Zoo	35	16:45	62	56%
2330	Morrison	35	17:08	62	56%
100270	Wx-A2-WestCreek (Hayman) - Precip	420		744	56%
4270	Cannon Mountain	37	12:37	62	60%
4870	SBC @ SB Road	37	16:36	62	60%
4330	Hansen Rain	38	15:57	62	61%
5720	Four Mile Creek	39	18:56	62	63%
1620	Slaughterhouse Glch	41	13:27	62	66%
100200	Wx-A2-OneRain Weather - Precipitation	42	12:00	62	68%
1660	SPR at Henderson	42	15:21	62	68%
3050	East/West Trailhead	508		744	68%
1710	Shop Creek	44	14:29	62	71%
100140	A2-Upper Sellers Gulch Precip	550		744	74%
100100	A2-Blackstone Precip	572		744	77%
4470	Little Narrows	48	12:19	62	77%
2230	Bear Cr below Cub	51	12:19	62	82%
2270	Cub Cr below Blue	52	12:44	62	84%
2360	Indian Hills	52	12:41	62	84%
4040	Martin Gulch	52	12:42	62	84%
100150	A2-Sellers Gulch at Haystack Precip	629		744	85%
2280	Kinney Peak	53	12:41	62	85%
2900	Russelville Gulch-Douglas	53	12:42	62	85%
2980	Dakan Rd	53	12:56	62	85%
4180	Gold Lake	53	12:40	62	85%
4290	Red Hill	53	14:07	62	85%
4340	Riverside	53	12:40	62	85%
4510	Pinewood Springs	53	13:31	62	85%
100260	Wx-A2-Trumbull (Hayman) - Precip	645		744	87%
540	Parker/Mississippi	54	12:52	62	87%
2370	Red Rocks Park	54	12:40	62	87%
4360	Justice Center	54	12:17	62	87%
310	Guy Hill Ranch	55	12:34	62	89%
940	Aurora Regional Pond	55	12:15	62	89%
1520	Wx-Marston Lake North	55	12:00	62	89%
4030	Red Garden	55	13:29	62	89%
1480	Third Creek at DIA	56	13:19	62	90%
2820	Haskins Gulch Conf	56	12:51	62	90%
2840	Sulphur Gulch	56	12:18	62	90%
2850	Cherry Cr bl Bayou Glch	56	12:08	62	90%
3010	WX-EPC at Hwy 105	56	12:18	62	90%
4110	Betasso	56	11:59	62	90%
4190	Slaughterhouse	56	12:56	62	90%
4250	Geer Canyon	56	12:33	62	90%
4770	Wx-Cal-Wood Ranch	56	12:49	62	90%
330	Van Bibber @ Hwy 93	57	12:35	62	92%
410	Kelly Dam	57	12:33	62	92%
430	Utah Park	57	12:16	62	92%
500	Havana Park	57	12:34	62	92%
510	Virginia Court	57	12:35	62	92%
1100	Louisville Rec Ctr	57	12:35	62	92%
1440	Wx-Elbert	57	12:00	62	92%

1640	SPR at Union Ave.	57	12:14	62	92%
1700	Cherry Cr @ Champa	57	12:32	62	92%
2350	Idledale	57	12:19	62	92%
2750	Wx-Castle Rock	57	12:35	62	92%
2810	Pine Cliff Road	57	12:00	62	92%
4050	Walker Ranch	57	12:33	62	92%
110	Ralston Reservoir	58	12:16	62	94%
210	Leyden Confluence	58	11:58	62	94%
300	Van Bibber Park	58	12:32	62	94%
520	Jewell Detention	58	11:57	62	94%
630	Temple Pond at DTC	58	11:57	62	94%
720	Confluence Pond	58	11:58	62	94%
760	Mission Viejo Park	58	12:15	62	94%
800	Sable Ditch @ 18th	58	11:58	62	94%
820	ETG @ Buckley	58	11:57	62	94%
840	Fire Station 12	58	12:15	62	94%
1010	Denver West	58	12:16	62	94%
1030	NREL/S. Table Mtn.	58	11:57	62	94%
1050	Jeffco Fairgrounds	58	12:32	62	94%
1060	Heritage Square	58	11:57	62	94%
1200	Broomfield 3207	58	12:15	62	94%
1320	SPR at 3rd Ave	58	11:58	62	94%
1350	Chatfield COE	58	12:00	62	94%
1530	Bear Creek @ Lowell	58	11:57	62	94%
1720	Cherry Cr @ Steele	58	12:16	62	94%
1800	Sand Creek Park	58	12:50	62	94%
2260	Brook Forest	58	11:58	62	94%
2710	Wx-Highlands Ranch WTP	58	12:18	62	94%
2860	CC at Stroh Rd	58	11:57	62	94%
2920	West Cherry Head-Douglas Cnty	58	12:00	62	94%
2950	DC Public Works	58	12:50	62	94%
3040	CC @ Russelville Road Precip	58	11:14	62	94%
3080	Tallman Gulch	58	12:18	62	94%
4020	Rio Grande	58	12:16	62	94%
4060	Lakeshore	58	11:57	62	94%
4080	Twin Sisters	58	11:57	62	94%
4200	Lazy Acres	58	11:59	62	94%
4300	Big Elk Park	58	12:14	62	94%
4310	Johnny Park	58	12:16	62	94%
4350	Conifer Hill	58	11:58	62	94%
4490	Apple Valley	58	12:13	62	94%
4520	Eagle Ridge	58	12:00	62	94%
4550	Boulder Jail	58	11:57	62	94%
4570	St. Antons	58	12:35	62	94%
4710	Wx-Ward C-1	58	12:00	62	94%
4790	Wx-Button Rock	58	12:00	62	94%
120	West Woods	59	11:58	62	95%
220	Upper Leyden	59	12:17	62	95%
420	Expo Park	59	11:57	62	95%
530	Fire Station #19	59	12:14	62	95%
600	Harvard Gulch Park	59	11:58	62	95%
620	Quincy/Highline	59	12:31	62	95%
650	Iliff Pond	59	11:59	62	95%
700	Toll Gate @ 6th	59	12:17	62	95%
710	Horseshoe Park Drop	59	11:40	62	95%
810	Granby Ditch @ 6th	59	12:14	62	95%
1370	West Metro FS13	59	12:14	62	95%
1460	Wx-Urban Farm	59	12:00	62	95%
1550	Lakewood CC	59	11:57	62	95%

1920	Wx-Brighton	59	12:00	62	95%
2240	Cold Sprg Glch conf	59	12:17	62	95%
2250	Rosedale	59	11:57	62	95%
2320	Choke Cherry Resvr	59	12:00	62	95%
2340	El Rancho	59	11:57	62	95%
2870	Cottonwood (Apache)	59	12:00	62	95%
2890	Spruce Mt - Douglas	59	12:00	62	95%
2930	Wx-Spring Valley Rd-DougCnty	59	12:00	62	95%
2960	Indian Creek	59	12:17	62	95%
4010	Crescent	59	12:16	62	95%
4220	Fling's	59	11:58	62	95%
4260	Taylor Mountain	59	11:57	62	95%
4530	Winiger Ridge	59	12:15	62	95%
4730	Wx-Sugarloaf	59	12:00	62	95%
4750	Wx-Louisville Lake	59	12:00	62	95%
4830	SBC @ San Souci	59	12:17	62	95%
4880	Whispering Pines	59	11:57	62	95%
5740	Trail Creek	59	12:21	62	95%
5940	Log Jumper	59	12:00	62	95%
140	Wx-Blue Mountain	60	12:00	62	97%
150	Nott Creek	60	12:17	62	97%
440	Fire Station #7	60	12:14	62	97%
640	Goldsmith @ Eastman	60	11:58	62	97%
730	No Name @ Quincy	60	11:58	62	97%
850	Flying J	60	12:00	62	97%
1300	Hidden Lake	60	11:58	62	97%
1600	Englewood Dam	60	12:15	62	97%
2210	Wx-Hiwan G.C.	60	12:00	62	97%
2310	Genesee Village	60	12:15	62	97%
2910	East Cherry Cr-Douglas	60	12:00	62	97%
2940	Willow Creek - DougCnty	60	12:00	62	97%
3030	WX-Bingham Lake Park	60	12:24	62	97%
4070	Bear Peak	60	12:32	62	97%
4130	Swiss Peaks	60	11:57	62	97%
4140	Logan Mill	60	11:58	62	97%
4160	Sunshine	60	11:58	62	97%
4170	Pine Brook	60	11:57	62	97%
4810	Shanahan Ridge	60	11:57	62	97%
4840	SBC@S Boulder Ditch	60	12:14	62	97%
200	Leyden Reservoir	61	11:57	62	98%
400	Montview Park	61	12:00	62	98%
610	Harvard @ Jackson	61	11:57	62	98%
750	Wx-Quincy Reservoir	61	11:57	62	98%
900	Wx-Aurora Reservoir	61	12:00	62	98%
920	Wx-Aurora Town Hall	61	10:27	62	98%
950	Piney at Liverpool	61	11:57	62	98%
970	Pump Sta 3	61	12:00	62	98%
1110	Gunbarrel	61	11:58	62	98%
1400	Upper Sloan Det.	61	11:57	62	98%
1420	Wx-A2-Diamond Hill	61	12:00	62	98%
1500	Powers Park	61	12:24	62	98%
1570	Wx-Brighton Ditch	61	12:00	62	98%
1900	Niver Detention	61	11:57	62	98%
2730	Wx-Salisbury Park	61	11:43	62	98%
4090	Magnolia	61	11:57	62	98%
4230	Golden Age	61	12:14	62	98%
4860	Fairview Peak	61	12:00	62	98%
5730	West Creek	61	11:31	62	98%
5860	Cedar Mountain	61	11:28	62	98%

100110	A2-ETG @ Hampden Precip	61	12:00	62	98%
100290	A2-PlumCr at Sedalia - Precip	736		744	99%
2800	Columbine Open Space	737		744	99%
4850	Porphory Mtn	737		744	99%
1000	A2-Maple Grove Resv.	738		744	99%
1340	Sanderson at Xavier	738		744	99%
3070	A2-Newlin Gulch Precip	738		744	99%
100300	A2-CoalCreek at McCaslin - Precip	738		744	99%
100320	A2-Weir Gulch - Precip	738		744	99%
100410	A2-Brantner Gulch - Precip	738		744	99%
100	A2-Carr Street	739		744	99%
1310	LDC at 64th	739		744	99%
100160	A2-Sand Creek at Colfax Precip	739		744	99%
100230	A2-Havana Pond Precip	739		744	99%
100240	A2-Westerly Cr Dam Precip	739		744	99%
100420	A2-Thorncreek - Precip	739		744	99%
870	A2-Murphy Creek GC	740		744	99%
320	Sports Complex	62	11:58	62	100%
830	Side Creek Park	62	12:00	62	100%
1040	Lena @ U.S. Hwy 6	62	11:58	62	100%
2880	Happy Canyon at N Surrey Dr	64	10:41	62	100%
2990	Wx-Tomah Rd-DougCnty	62	10:53	62	100%
3060	Fire Sta 47	761		744	100%
4150	Gold Hill	62	11:58	62	100%
4240	Sunset	62	11:58	62	100%
4320	Lee Hill Rain 2012	74	8:01	62	100%
4820	Doudy Draw	63	11:57	62	100%
5880	Hackett Mountain	62	11:38	62	100%
6601	Wx-A2-Magnolia WX-Precip	91	8:00	62	100%
2970	Rampart Range Rd-Satellite	293		744	100%
5900	Horse Creek-Satellite	1995		44640	100%
3020	Wx-West Creek WX	747		744	100%



Rain Event Performance	Reports Received	Reports Received	18,901	Analyze Rain Sensors							<<show stations with zero rain (1-yes, 0-no)								
	Systemwide Avg	Total Tips	19,919																
	94.57%	Data Loss	5.11%																
Description	Sensor	Performance	1-tips	2-tips	3-tips	4-tips	5-tips	6-tips	>6-tips	Rcv	Exp	Miss	Hold	Bucket					
Wx-W. Cherry Creek	2790	29%	1	0	2	1	0	1	5	5	17	12	0	0.0393701					
Hansen Rain	4330	69%	62	18	2	3	1	1	1	87	127	40	0	0.0393701	Mean			99.60	
Stump Bump	5810	69%	17	5	1	0	1	0	2	24	35	11	0	0.0393701	Median			99	
A2-Highland Heritage Park	3090	69%	52	6	3	4	0	1	2	66	95	29	0	0.0393701	St. Dev			30.49	
Horse Creek-Satellite	5900	70%	34	2	1	1	0	2	0	40	57	17	0	0.0393701	Mean plus 3 SD			191.05	
Powers Park	1500	75%	9	2	1	0	0	0	0	12	16	4	0	0.0393701	Mean Minus 2 SD			38.62	
Wx-Button Rock	4790	77%	83	18	5	0	1	0	0	107	139	32	0	0.0393701	Min			5	
Little Narrows	4470	78%	101	23	6	1	0	0	1	131	169	38	0	0.0393701	Max			209	
SPR at Henderson	1660	79%	76	15	5	0	0	0	0	96	121	25	0	0.0393701					
Sanderson at Xavier	1340	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701					
Cannon Mountain	4270	80%	56	9	2	0	1	0	1	68	85	17	0	0.0393701					
Slaughterhouse Gich	1620	82%	50	8	0	0	0	1	2	59	72	13	0	0.0393701					
Morrison	2330	83%	65	15	1	0	0	0	0	81	98	17	0	0.0393701					
Pinewood Springs	4510	83%	94	13	3	1	0	0	0	111	133	22	0	0.0393701					
A2-Upper Sellers Gulch Precip	100140	84%	49	7	2	0	0	0	0	58	69	11	0	0.0393701					
Denver Zoo	1360	84%	83	9	3	1	0	0	1	96	114	18	0	0.0393701					
Eagle Ridge	4520	85%	80	14	0	1	0	0	0	95	112	17	0	0.0393701					
Guy Hill Ranch	310	85%	60	5	2	1	0	0	0	68	80	12	0	0.0393701					
Wx-Cal-Wood Ranch	4770	85%	47	4	0	0	0	1	0	52	61	9	1	0.0393701					
SBC @ SB Road	4870	86%	107	15	3	0	0	0	0	125	146	21	0	0.0393701					
Shop Creek	1710	86%	87	6	3	0	1	0	0	97	113	16	0	0.0393701					
Bear Cr below Cub	2230	87%	87	13	1	0	0	0	0	101	116	15	0	0.0393701					
Indian Hills	2360	88%	102	11	1	1	0	0	0	115	131	16	0	0.0393701					
Chatfield COE	1350	88%	71	7	2	0	0	0	0	80	91	11	0	0.0393701					
WX-EPC at Hwy 105	3010	88%	60	7	1	0	0	0	0	68	77	9	0	0.0393701					
Aurora Regional Pond	940	89%	92	7	3	0	0	0	0	102	115	13	0	0.0393701					
Parker/Mississippi	540	89%	75	6	2	0	0	0	0	83	93	10	0	0.0393701					
Big Elk Park	4300	90%	55	7	0	0	0	0	0	62	69	7	0	0.0393701					
Dakan Rd	2980	90%	68	8	0	0	0	0	0	76	84	8	0	0.0393701					
WX-Bingham Lake Park	3030	91%	64	7	0	0	0	0	0	71	78	7	0	0.0393701					
Gold Lake	4180	91%	75	6	1	0	0	0	0	82	90	8	0	0.0393701					
Golden Age	4230	91%	57	6	0	0	0	0	0	63	69	6	0	0.0393701					
Four Mile Creek	5720	91%	38	4	0	0	0	0	0	42	46	4	0	0.0393701					
Red Rocks Park	2370	92%	94	9	0	0	0	0	0	103	112	9	0	0.0393701					
Bear Creek @ Lowell	1530	92%	97	7	1	0	0	0	0	105	114	9	0	0.0393701					
Russelville Gulch-Douglas	2900	92%	64	6	0	0	0	0	0	70	76	6	0	0.0393701					
Conifer Hill	4350	92%	89	4	2	0	0	0	0	95	103	8	0	0.0393701					
Cherry Cr @ Champa	1700	92%	89	8	0	0	0	0	0	97	105	8	0	0.0393701					
Slaughterhouse	4190	93%	91	8	0	0	0	0	0	99	107	8	0	0.0393701					
Wx-Marston Lake North	1520	93%	85	7	0	0	0	0	0	92	99	7	0	0.0393701					
Iliff Pond	650	93%	61	5	0	0	0	0	0	66	71	5	0	0.0393701					
Fire Station 12	840	93%	76	3	0	1	0	0	0	80	86	6	2	0.0393701					
Wx-A2-Trumbull (Hayman) - Precip	100260	93%	63	3	1	0	0	0	0	67	72	5	0	0.0393701					
Tallman Gulch	3080	93%	76	6	0	0	0	0	0	82	88	6	0	0.0393701					
Taylor Mountain	4260	93%	78	6	0	0	0	0	0	84	90	6	0	0.0393701					
Shanahan Ridge	4810	93%	158	10	1	0	0	0	0	169	181	12	0	0.0393701					
Justice Center	4360	93%	132	8	1	0	0	0	0	141	151	10	0	0.0393701					
Cherry Cr @ Steele	1720	93%	93	5	1	0	0	0	0	99	106	7	0	0.0393701					
Genesee Village	2310	94%	122	7	1	0	0	0	0	130	139	9	0	0.0393701					
Expo Park	420	94%	82	4	1	0	0	0	0	87	93	6	0	0.0393701					
Virginia Court	510	94%	82	6	0	0	0	0	0	88	94	6	0	0.0393701					
Sand Creek Park	1800	94%	82	6	0	0	0	0	0	88	94	6	0	0.0393701					
St. Antons	4570	94%	83	6	0	0	0	0	0	89	95	6	0	0.0393701					
Third Creek at DIA	1480	94%	84	6	0	0	0	0	0	90	96	6	0	0.0393701					
Red Garden	4030	94%	184	11	1	0	0	0	0	196	209	13	0	0.0393701					
ETG @ Buckley	820	94%	72	5	0	0	0	0	0	77	82	5	0	0.0393701					
Kinney Peak	2280	94%	91	3	0	1	0	0	0	95	101	6	0	0.0393701					

Martin Gulch	4040	94%	153	10	0	0	0	0	0	0	163	173	10	0	0.0393701		
Granby Ditch @ 6th	810	94%	80	3	1	0	0	0	0	0	84	89	5	0	0.0393701		
Wx-Highlands Ranch WTP	2710	94%	96	6	0	0	0	0	0	0	102	108	6	0	0.0393701		
Idledale	2350	94%	113	7	0	0	0	0	0	0	120	127	7	0	0.0393701		
Van Bibber @ Hwy 93	330	95%	133	5	0	1	0	0	0	0	139	147	8	0	0.0393701		
Toll Gate @ 6th	700	95%	82	5	0	0	0	0	0	0	87	92	5	0	0.0393701		
Jewell Detention	520	95%	100	6	0	0	0	0	0	0	106	112	6	0	0.0393701		
Wx-Castle Rock	2750	95%	50	3	0	0	0	0	0	0	53	56	3	0	0.0393701		
Sulphur Gulch	2840	95%	85	3	1	0	0	0	0	0	89	94	5	0	0.0393701		
LDC at 64th	1310	95%	124	0	0	1	1	0	0	0	126	133	7	0	0.0393701		
Sunshine	4160	95%	86	3	1	0	0	0	0	0	90	95	5	0	0.0393701		
Rio Grande	4020	95%	139	6	1	0	0	0	0	0	146	154	8	0	0.0393701		
Walker Ranch	4050	95%	104	6	0	0	0	0	0	0	110	116	6	0	0.0393701		
Sable Ditch @ 18th	800	95%	88	5	0	0	0	0	0	0	93	98	5	0	0.0393701		
Cub Cr below Blue	2270	95%	107	6	0	0	0	0	0	0	113	119	6	0	0.0393701		
Quincy/Highline	620	95%	92	5	0	0	0	0	0	0	97	102	5	0	0.0393701		
SBC @ San Souci	4830	95%	131	5	1	0	0	0	0	0	137	144	7	0	0.0393701		
East/West Trailhead	3050	95%	76	2	1	0	0	0	0	1	79	83	4	1	0.0393701		
Fire Station #7	440	95%	95	3	1	0	0	0	0	0	99	104	5	0	0.0393701		
Log Jumper	5940	95%	57	3	0	0	0	0	0	0	60	63	3	0	0.0393701		
Rampart Range Rd-Satellite	2970	96%	81	4	0	0	0	0	0	0	85	89	4	0	0.0393701		
EI Rancho	2340	96%	61	3	0	0	0	0	0	0	64	67	3	0	0.0393701		
Havana Park	500	96%	83	4	0	0	0	0	0	0	87	91	4	0	0.0393701		
Doudy Draw	4820	96%	155	5	1	0	0	0	0	0	161	168	7	0	0.0393701		
Upper Leyden	220	96%	133	6	0	0	0	0	0	0	139	145	6	0	0.0393701		
Apple Valley	4490	96%	113	3	1	0	0	0	0	0	117	122	5	0	0.0393701		
NREL/S. Table Mtn.	1030	96%	91	2	1	0	0	0	0	0	94	98	4	0	0.0393701		
West Metro FS13	1370	96%	93	2	1	0	0	0	0	0	96	100	4	0	0.0393701		
Harvard @ Jackson	610	96%	93	4	0	0	0	0	0	0	97	101	4	0	0.0393701		
Leyden Confluence	210	96%	140	6	0	0	0	0	0	0	146	152	6	0	0.0393701		
Goldsmith @ Eastman	640	96%	70	3	0	0	0	0	0	0	73	76	3	0	0.0393701		
Johnny Park	4310	96%	96	2	1	0	0	0	0	0	99	103	4	0	0.0393701		
Fire Station #19	530	96%	96	4	0	0	0	0	0	0	100	104	4	0	0.0393701		
No Name @ Quincy	730	96%	72	3	0	0	0	0	0	0	75	78	3	0	0.0393701		
Niver Detention	1900	96%	96	4	0	0	0	0	0	0	100	104	4	0	0.0393701		
Upper Sloan Det.	1400	96%	97	4	0	0	0	0	0	0	101	105	4	0	0.0393701		
Lakeshore	4060	96%	73	3	0	0	0	0	0	0	76	79	3	0	0.0393701		
Fire Sta 47	3060	96%	102	1	0	1	0	0	0	0	104	108	4	0	0.0393701		
Cherry Cr bl Bayou Glch	2850	96%	76	3	0	0	0	0	0	0	79	82	3	0	0.0393701		
Betasso	4110	96%	152	6	0	0	0	0	0	0	158	164	6	0	0.0393701		
SPR at 3rd Ave	1320	96%	103	4	0	0	0	0	0	0	107	111	4	0	0.0393701		
Cedar Mountain	5860	96%	52	2	0	0	0	0	0	0	54	56	2	0	0.0393701		
Cold Sprg Glch conf	2240	97%	107	4	0	0	0	0	0	0	111	115	4	0	0.0393701		
Crescent	4010	97%	109	2	1	0	0	0	0	0	112	116	4	0	0.0393701		
Temple Pond at DTC	630	97%	110	4	0	0	0	0	0	0	114	118	4	0	0.0393701		
Fling's	4220	97%	84	3	0	0	0	0	0	0	87	90	3	0	0.0393701		
Wx-Quincy Reservoir	750	97%	115	4	0	0	0	0	0	0	119	123	4	0	0.0393701		
Heritage Square	1060	97%	87	3	0	0	0	0	0	0	90	93	3	0	0.0393701		
CC at Stroh Rd	2860	97%	29	1	0	0	0	0	0	0	30	31	1	0	0.0393701		
Riverside	4340	97%	60	2	0	0	0	0	0	0	62	64	2	0	0.0393701		
Denver West	1010	97%	96	3	0	0	0	0	0	0	99	102	3	0	0.0393701		
Horseshoe Park Drop	710	97%	97	3	0	0	0	0	0	0	100	103	3	0	0.0393701		
Ralston Reservoir	110	97%	134	4	0	0	0	0	0	0	138	142	4	0	0.0393701		
Sunset	4240	97%	68	2	0	0	0	0	0	0	70	72	2	0	0.0393701		
Kelly Dam	410	97%	105	3	0	0	0	0	0	0	108	111	3	0	0.0393701		
Wx-Brighton Ditch	1570	97%	145	4	0	0	0	0	0	0	149	153	4	0	0.0393701		
Lakewood CC	1550	97%	113	3	0	0	0	0	0	0	116	119	3	0	0.0393701		
Utah Park	430	98%	115	1	1	0	0	0	0	0	117	120	3	0	0.0393701		
Broomfield 3207	1200	98%	114	3	0	0	0	0	0	0	117	120	3	0	0.0393701		
Geer Canyon	4250	98%	153	4	0	0	0	0	0	1	157	161	4	0	0.0393701		
Twin Sisters	4080	98%	118	3	0	0	0	0	0	0	121	124	3	0	0.0393701		
Happy Canyon at N Surrey Dr	2880	98%	120	3	0	0	0	0	0	0	123	126	3	0	0.0393701		

Columbine Open Space	2800	98%	82	2	0	0	0	0	0	0	84	86	2	0	0.0393701		
Wx-Aurora Reservoir	900	98%	82	2	0	0	0	0	0	0	84	86	2	0	0.0393701		
Wx-Ward C-1	4710	98%	83	2	0	0	0	0	0	0	85	87	2	0	0.0393701		
Pump Sta 3	970	98%	84	2	0	0	0	0	0	0	86	88	2	0	0.0393701		
SBC@S Boulder Ditch	4840	98%	129	3	0	0	0	0	0	0	132	135	3	0	0.0393701		
Confluence Pond	720	98%	92	2	0	0	0	0	0	0	94	96	2	0	0.0393701		
Pine Cliff Road	2810	98%	92	2	0	0	0	0	0	0	94	96	2	0	0.0393701		
Haskins Gulch Conf	2820	98%	93	2	0	0	0	0	0	0	95	97	2	0	0.0393701		
Indian Creek	2960	98%	93	2	0	0	0	0	0	0	95	97	2	0	0.0393701		
A2-Thorncreek - Precip	100420	98%	95	2	0	0	0	0	0	0	97	99	2	1	0.0393701		
Brook Forest	2260	98%	97	2	0	0	0	0	0	0	99	101	2	0	0.0393701		
Wx-Tomah Rd-DougCnty	2990	98%	97	2	0	0	0	0	0	0	99	101	2	0	0.0393701		
Lena @ U.S. Hwy 6	1040	98%	102	2	0	0	0	0	0	0	104	106	2	0	0.0393701		
Wx-Elbert	1440	98%	51	1	0	0	0	0	0	0	52	53	1	0	0.0393701		
Choke Cherry Resvr	2320	98%	103	2	0	0	0	0	0	0	105	107	2	0	0.0393701		
Mission Viejo Park	760	98%	104	2	0	0	0	0	0	0	106	108	2	0	0.0393701		
Louisville Rec Ctr	1100	98%	104	2	0	0	0	0	0	0	106	108	2	0	0.0393701		
Lazy Acres	4200	98%	107	2	0	0	0	0	0	0	109	111	2	0	0.0393701		
Wx-Urban Farm	1460	98%	108	2	0	0	0	0	0	0	110	112	2	0	0.0393701		
A2-Weir Gulch - Precip	100320	98%	109	2	0	0	0	0	0	0	111	113	2	0	0.0393701		
Nott Creek	150	98%	111	2	0	0	0	0	0	0	113	115	2	0	0.0393701		
Englewood Dam	1600	98%	111	2	0	0	0	0	0	0	113	115	2	0	0.0393701		
Magnolia	4090	98%	116	2	0	0	0	0	0	0	118	120	2	0	0.0393701		
Hidden Lake	1300	98%	118	2	0	0	0	0	0	0	120	122	2	0	0.0393701		
Hackett Mountain	5880	98%	60	1	0	0	0	0	0	0	61	62	1	0	0.0393701		
CC @ Russelville Road Precip	3040	98%	61	1	0	0	0	0	0	0	62	63	1	0	0.0393701		
Trail Creek	5740	98%	61	1	0	0	0	0	0	0	62	63	1	0	0.0393701		
A2-Carr Street	100	98%	123	2	0	0	0	0	0	0	125	127	2	1	0.0393701		
East Cherry Cr-Douglas	2910	99%	66	1	0	0	0	0	0	0	67	68	1	0	0.0393701		
Boulder Jail	4550	99%	135	2	0	0	0	0	0	0	137	139	2	0	0.0393701		
Spruce Mt - Douglas	2890	99%	68	1	0	0	0	0	0	0	69	70	1	0	0.0393701		
Wx-Spring Valley Rd-DougCnty	2930	99%	70	1	0	0	0	0	0	0	71	72	1	0	0.0393701		
Leyden Reservoir	200	99%	82	1	0	0	0	0	0	0	83	84	1	0	0.0393701		
DC Public Works	2950	99%	82	1	0	0	0	0	0	0	83	84	1	0	0.0393701		
Wx-Aurora Town Hall	920	99%	84	1	0	0	0	0	0	1	85	86	1	0	0.0393701		
Wx-Hiwan G.C.	2210	99%	90	1	0	0	0	0	0	0	91	92	1	0	0.0393701		
Lee Hill Rain 2012	4320	99%	93	1	0	0	0	0	0	2	94	95	1	0	0.0393701		
A2-Blackstone Precip	100100	99%	96	1	0	0	0	0	0	0	97	98	1	2	0.0393701		
A2-Westerly Cr Dam Precip	100240	99%	96	1	0	0	0	0	0	0	97	98	1	0	0.0393701		
Cottonwood (Apache)	2870	99%	98	1	0	0	0	0	0	0	99	100	1	0	0.0393701		
Wx-Sugarloaf	4730	99%	110	1	0	0	0	0	0	0	111	112	1	0	0.0393701		
Wx-Louisville Lake	4750	99%	110	1	0	0	0	0	0	0	111	112	1	0	0.0393701		
Van Bibber Park	300	99%	113	1	0	0	0	0	0	0	114	115	1	0	0.0393701		
Wx-Blue Mountain	140	99%	115	1	0	0	0	0	0	0	116	117	1	0	0.0393701		
Piney at Liverpool	950	99%	116	1	0	0	0	0	0	0	117	118	1	0	0.0393701		
Gunbarrel	1110	99%	116	1	0	0	0	0	0	0	117	118	1	0	0.0393701		
Harvard Gulch Park	600	99%	119	1	0	0	0	0	0	0	120	121	1	0	0.0393701		
Bear Peak	4070	99%	121	1	0	0	0	0	0	0	122	123	1	0	0.0393701		
A2-Brantner Gulch - Precip	100410	99%	122	1	0	0	0	0	0	0	123	124	1	0	0.0393701		
Wx-Brighton	1920	99%	123	1	0	0	0	0	0	0	124	125	1	0	0.0393701		
West Woods	120	99%	129	1	0	0	0	0	0	0	130	131	1	0	0.0393701		
Sports Complex	320	100%	83	0	0	0	0	0	0	0	83	83	0	0	0.0393701		
Montview Park	400	100%	97	0	0	0	0	0	0	0	97	97	0	0	0.0393701		
Side Creek Park	830	100%	93	0	0	0	0	0	0	0	93	93	0	0	0.0393701		
Flying J	850	100%	102	0	0	0	0	0	0	0	102	102	0	0	0.0393701		
A2-Murphy Creek GC	870	100%	104	0	0	0	0	0	0	0	104	104	0	0	0.0393701		
A2-Maple Grove Resv.	1000	100%	94	0	0	0	0	0	0	0	94	94	0	0	0.0393701		
Jeffco Fairgrounds	1050	100%	78	0	0	0	0	0	0	0	78	78	0	0	0.0393701		
Wx-A2-Diamond Hill	1420	100%	70	0	0	0	0	0	0	0	70	70	0	0	0.0393701		
SPR at Union Ave.	1640	100%	94	0	0	0	0	0	0	0	94	94	0	0	0.0393701		
Rosedale	2250	100%	92	0	0	0	0	0	0	0	92	92	0	0	0.0393701		
Wx-Salisbury Park	2730	100%	76	0	0	0	0	0	0	0	76	76	0	0	0.0393701		

West Cherry Head-Douglas Cnty	2920	100%	70	0	0	0	0	0	0	70	70	0	0	0.0393701	
Willow Creek - DougCnty	2940	100%	62	0	0	0	0	0	0	62	62	0	0	0.0393701	
Wx-West Creek WX	3020	100%	79	0	0	0	0	0	0	79	79	0	0	0.0393701	
A2-Newlin Gulch Precip	3070	100%	88	0	0	0	0	0	0	88	88	0	0	0.0393701	
Swiss Peaks	4130	100%	100	0	0	0	0	0	0	100	100	0	0	0.0393701	
Logan Mill	4140	100%	100	0	0	0	0	0	0	100	100	0	0	0.0393701	
Gold Hill	4150	100%	77	0	0	0	0	0	0	77	77	0	0	0.0393701	
Pine Brook	4170	100%	90	0	0	0	0	0	0	90	90	0	0	0.0393701	
Red Hill	4290	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701	
Winiger Ridge	4530	100%	45	0	0	0	0	0	0	45	45	0	0	0.0393701	
Whispering Pines	4880	100%	132	0	0	0	0	0	0	132	132	0	0	0.0393701	
West Creek	5730	100%	72	0	0	0	0	0	0	72	72	0	0	0.0393701	
A2-ETG @ Hampden Precip	100110	100%	112	0	0	0	0	0	0	112	112	0	0	0.0393701	
A2-Sellers Gulch at Haystack Precip	100150	100%	71	0	0	0	0	0	0	71	71	0	0	0.0393701	
A2-Sand Creek at Colfax Precip	100160	100%	88	0	0	0	0	0	0	88	88	0	0	0.0393701	
A2-Havana Pond Precip	100230	100%	124	0	0	0	0	0	0	124	124	0	0	0.0393701	
Wx-A2-WestCreek (Hayman) - Precip	100270	100%	20	0	0	0	0	0	0	20	20	0	0	0.0393701	
A2-PlumCr at Sedalia - Precip	100290	100%	90	0	0	0	0	0	0	90	90	0	0	0.0393701	
A2-CoalCreek at McCaslin - Precip	100300	100%	132	0	0	0	0	0	0	132	132	0	0	0.0393701	
			Total Tips	18049	739	80	20	6	7	20	18901	19919	1018	8	
Porphory Mtn	4850	95%	352	11	4	0	0	0	0	367	386	19	2	0.01	
Fairview Peak	4860	97%	399	11	0	0	0	0	0	410	421	11	17	0.01	
Wx-A2-Magnolia WX-Precip	6601	99%	387	1	1	0	0	0	0	389	392	3	4	0.01	
Wx-A2-OneRain Weather - Precipitation	100200	100%	156	0	0	0	0	0	0	156	156	0	0	0.01	

## 2017 Monthly Peak Hour ALERT Radio Traffic Summary

