

## General System Analysis

**Database Name** P:\A207-UDFCD-Data-Analysis\2004 Storms Analysis\Novastar\_extract\_0608.mdb

<b>First Date in Database</b>	6/8/04 12:00 AM
<b>Last Date in Database</b>	6/8/04 11:59 PM

<b>Total Days</b>	1.0
<b>Total Hours</b>	24.0

**Total Records Analyzed** 2190

### Records by Group

Precipitation	1153	53%
Water Level PT-HSE	754	34%
Water Level PT	117	5%
Battery Voltage HSE	35	2%
Longmont Flow Gage	34	2%
Handar 585 ALARM Status	25	1%
Battery Voltage Digital	20	1%
Barometric Pressure	18	1%
Wind Speed Average & Azimuth	14	1%
Water Level Float	9	0%
12Hr Status Report	7	0%
Battery Voltage Analog	2	0%
Longmont Water Level PT	2	0%
<b>Total</b>	<b>2190</b>	

### Records by Major Group

Rain Sensors	1153	53%
Water Level Sensors	916	42%
Sensor Status Transmissions	89	4%
Meteorologic Sensors	32	1%
Soil and Fuel Sensors	0	0%
<b>Total</b>	<b>2190</b>	

### Records by Validation Type

Good	0	2180	100%
Questionable	1	10	0%
<b>Total</b>		<b>2190</b>	

### Sensors With Most Invalid Data

Description	Sensor	Reports
Lena @ Nolte Pond	1023	2
Sports Complex	323	1
Fire Station 12	840	1
Aurora Reservoir	900	1
Red Garden	4030	1

### Traffic Loading Summary

Alert Reports	2190	
Average Daily Traffic	2190	
Average Hourly Traffic	91	
Median Hourly Traffic	37	hour beginning
Peak Hourly Traffic	572	6/8/04 9:00 PM

Rain Event Performance		Reports Received	Analyze Rain Sensors											
8-Jun-04		869												
	Systemwide Avg	Total Tips												
	83%	Data Loss												
		1053												
		17.47%												
Rain Sensor	Total Performance	1-tips	2-tips	3-tips	4-tips	5-tips	6-tips	>6-tips	Received	Expected	Missed	Hold-off	Size	
110	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701	
120	96%	23	1	0	0	0	0	0	24	25	1	0	0.0393701	
140	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701	
150	75%	5	0	1	0	0	0	0	6	8	2	0	0.0393701	
200	85%	21	1	0	1	0	0	0	23	27	4	0	0.0393701	
210	89%	15	2	0	0	0	0	0	17	19	2	0	0.0393701	
220	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
300	86%	28	3	1	0	0	0	0	32	37	5	0	0.0393701	
310	89%	7	1	0	0	0	0	0	8	9	1	0	0.0393701	
320	69%	6	5	0	0	0	0	0	11	16	5	0	0.0393701	
330	91%	18	2	0	0	0	0	0	20	22	2	0	0.0393701	
430	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
510	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
610	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
630	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
1000	68%	36	12	2	1	0	1	0	52	76	24	1	0.0393701	
1010	78%	50	10	4	0	0	0	0	64	82	18	1	0.0393701	
1030	83%	33	5	0	1	0	0	0	39	47	8	0	0.0393701	
1040	74%	18	6	0	1	0	0	0	25	34	9	0	0.0393701	
1050	74%	9	5	0	0	0	0	0	14	19	5	0	0.0393701	
1060	82%	11	3	0	0	0	0	0	14	17	3	0	0.0393701	
1100	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
1110	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
1200	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701	
1300	71%	4	0	1	0	0	0	0	5	7	2	0	0.0393701	
1310	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
1400	50%	0	2	0	0	0	0	0	2	4	2	0	0.0393701	
1420	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
1500	80%	6	2	0	0	0	0	0	8	10	2	0	0.0393701	
1900	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
2190	71%	4	0	1	0	0	0	0	5	7	2	0	0.0393701	
2210	84%	17	4	0	0	0	0	0	21	25	4	0	0.0393701	
2230	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
2240	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
2250	89%	28	4	0	0	0	0	0	32	36	4	1	0.0393701	
2260	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
2280	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
2310	77%	17	5	1	0	0	0	0	23	30	7	0	0.0393701	
2320	80%	9	3	0	0	0	0	0	12	15	3	0	0.0393701	
2330	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
2340	79%	18	3	0	1	0	0	0	22	28	6	0	0.0393701	
2350	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
2360	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
2370	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
2810	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
2830	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
4010	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701	
4020	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701	
4030	38%	2	0	0	0	0	1	0	3	8	5	0	0.0393701	
4040	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
4050	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
4060	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
4070	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
4080	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
4090	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
4100	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
4110	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
4130	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701	
4140	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701	
4150	92%	10	1	0	0	0	0	0	11	12	1	0	0.0393701	
4160	89%	7	1	0	0	0	0	0	8	9	1	0	0.0393701	
4170	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
4180	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701	
4200	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
4220	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
4230	95%	19	1	0	0	0	0	0	20	21	1	0	0.0393701	
4240	79%	8	3	0	0	0	0	0	11	14	3	0	0.0393701	
4250	74%	10	3	1	0	0	0	0	14	19	5	0	0.0393701	
4260	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
4270	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
4290	62%	10	6	1	1	0	0	0	18	29	11	0	0.0393701	
4300	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
4310	94%	16	1	0	0	0	0	0	17	18	1	0	0.0393701	
4330	92%	10	1	0	0	0	0	0	11	12	1	0	0.0393701	
4340	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
4350	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701	
4470	80%	20	3	0	1	0	0	0	24	30	6	0	0.0393701	
4490	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
4510	83%	16	4	0	0	0	0	0	20	24	4	0	0.0393701	
4520	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701	
4530	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
4550	67%	1	1	0	0	0	0	0	2	3	1	0	0.0393701	
4570	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
4710	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701	
4730	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
4750	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
4770	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
4790	93%	13	1	0	0	0	0	0	14	15	1	0	0.0393701	
4810	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
4820	57%	2	1	1	0	0	0	0	4	7	3	0	0.0393701	
4830	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
4840	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
	Total Tips	721	125	14	7	0	2	0	869	1053	184			

# General System Analysis

**Database Name** P:\A207-UDFCD-Data-Analysis\2004 Storms Analysis\Novastar\_extract\_0627.mdb

<b>First Date in Database</b>	6/27/04 12:04 AM
<b>Last Date in Database</b>	6/27/04 11:59 PM

**Total Days**  
**Total Hours**

1.0
23.9

**Total Records Analyzed** 3281

**Records by Group**

Precipitation	1663	51%
Water Level PT-HSE	1253	38%
Water Level PT	173	5%
Water Level Float	47	1%
Battery Voltage HSE	34	1%
Longmont Flow Gage	34	1%
Handar 585 ALARM Status	27	1%
Battery Voltage Digital	22	1%
Barometric Pressure	9	0%
12Hr Status Report	8	0%
Wind Speed Average & Azimuth	7	0%
Longmont Water Level PT	2	0%
Battery Voltage Analog	1	0%
Temperature	1	0%
<b>Total</b>	<b>3281</b>	

**Records by Major Group**

Rain Sensors	1663	51%
Water Level Sensors	1509	46%
Sensor Status Transmissions	92	3%
Meteorologic Sensors	17	1%
Soil and Fuel Sensors	0	0%
<b>Total</b>	<b>3281</b>	

**Records by Validation Type**

Good	0	3267	100%
Questionable	1	14	0%
<b>Total</b>		<b>3281</b>	

**Sensors With Most Invalid Data**

Description	Sensor	Reports
Carr Street	103	1
Sable Ditch @ 18th	803	1
Urban Farm	1462	1
Niver Detention	1900	1
Brook Forest	2260	1

**Traffic Loading Summary**

Alert Reports	3281	
Average Daily Traffic	3281	
Average Hourly Traffic	137	
Median Hourly Traffic	39	hour beginning
Peak Hourly Traffic	604	6/27/04 4:00 PM

Rain Event Performance		Reports Received	1399	Analyze Rain Sensors											
27-Jun-07	Systemwide Avg	Total Tips	1600												
	90%	Data Loss	12.56%												
Rain Sensor	Total Performance	1-tips	2-tips	3-tips	4-tips	5-tips	6-tips	>6-tips	Received	Expected	Missed	Hold-off	Bucket		
100	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701		
110	80%	16	3	1	0	0	0	1	21	32	5	0	0.0393701		
120	77%	24	8	1	0	0	0	0	33	43	10	0	0.0393701		
140	97%	29	1	0	0	0	0	0	30	31	1	0	0.0393701		
150	75%	4	2	0	0	0	0	0	6	8	2	0	0.0393701		
200	100%	17	0	0	0	0	0	0	17	17	0	0	0.0393701		
210	79%	8	3	0	0	0	0	0	11	14	3	0	0.0393701		
220	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701		
300	85%	29	6	0	0	0	0	0	35	41	6	0	0.0393701		
310	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701		
320	80%	12	4	0	0	0	0	0	16	20	4	0	0.0393701		
330	91%	43	5	0	0	0	0	0	48	53	5	0	0.0393701		
400	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701		
410	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
420	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701		
430	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701		
440	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
500	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
510	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
520	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
530	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701		
540	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
600	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701		
610	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701		
620	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701		
630	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
640	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701		
700	50%	0	1	0	0	0	0	0	1	2	1	0	0.0393701		
730	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
740	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
750	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
800	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
810	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
820	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
830	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
840	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
850	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
870	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
900	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393699		
1000	72%	11	0	1	1	0	0	0	13	18	5	0	0.0393701		
1010	82%	24	3	0	1	0	0	0	28	34	6	0	0.0393701		
1030	86%	20	4	0	0	0	0	0	24	28	4	0	0.0393701		
1040	98%	38	1	0	0	0	0	0	39	40	1	0	0.0393701		
1050	88%	31	5	0	0	0	0	0	36	41	5	0	0.0393701		
1060	92%	32	3	0	0	0	0	0	35	38	3	0	0.0393701		
1100	89%	28	4	0	0	0	0	0	32	36	4	0	0.0393701		
1110	91%	19	2	0	0	0	0	0	21	23	2	0	0.0393701		
1200	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701		
1300	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701		
1310	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701		
1320	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701		
1330	67%	1	1	0	0	0	0	0	2	3	1	0	0.0393701		
1340	70%	5	1	1	0	0	0	0	7	10	3	0	0.0393701		
1350	67%	9	3	2	0	0	0	0	14	21	7	0	0.0393701		
1360	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701		
1370	81%	33	8	1	0	0	0	0	42	52	10	0	0.0393701		
1400	86%	10	2	0	0	0	0	0	12	14	2	0	0.0393701		
1420	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701		
1500	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701		
1520	76%	10	2	1	0	0	0	0	13	17	4	0	0.0393701		
1530	56%	3	0	2	0	0	0	0	5	9	4	0	0.0393701		
1600	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
1620	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701		
1640	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701		
1660	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
1700	75%	4	2	0	0	0	0	0	6	8	2	0	0.0393701		
1710	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701		
1720	40%	1	0	0	1	0	0	0	2	5	3	0	0.0393701		

1800	50%	0	1	0	0	0	0	0	0	1	2	1	0	0.0393701
1810	100%	3	0	0	0	0	0	0	0	3	3	0	0	0.0393701
2190	100%	13	0	0	0	0	0	0	0	13	13	0	0	0.0393701
2210	100%	13	0	0	0	0	0	0	0	13	13	0	0	0.0393701
2230	91%	19	2	0	0	0	0	0	0	21	23	2	0	0.0393701
2240	75%	4	2	0	0	0	0	0	0	6	8	2	0	0.0393701
2250	81%	10	3	0	0	0	0	0	0	13	16	3	0	0.0393701
2260	88%	14	0	1	0	0	0	0	0	15	17	2	0	0.0393701
2270	82%	22	6	0	0	0	0	0	0	28	34	6	0	0.0393701
2280	100%	3	0	0	0	0	0	0	0	3	3	0	0	0.0393701
2310	92%	10	1	0	0	0	0	0	0	11	12	1	0	0.0393701
2320	83%	9	0	1	0	0	0	0	0	10	12	2	0	0.0393701
2330	80%	15	5	0	0	0	0	0	0	20	25	5	0	0.0393701
2340	80%	3	1	0	0	0	0	0	0	4	5	1	0	0.0393701
2350	100%	8	0	0	0	0	0	0	0	8	8	0	0	0.0393701
2360	100%	8	0	0	0	0	0	0	0	8	8	0	0	0.0393701
2370	73%	5	3	0	0	0	0	0	1	9	20	3	0	0.0393701
2710	89%	7	1	0	0	0	0	0	0	8	9	1	0	0.0393701
2730	100%	1	0	0	0	0	0	0	0	1	1	0	0	0.0393701
2750	100%	4	0	0	0	0	0	0	0	4	4	0	0	0.0393701
2810	88%	18	3	0	0	0	0	0	0	21	24	3	0	0.0393701
2820	67%	3	0	1	0	0	0	0	0	4	6	2	0	0.0393701
2830	100%	1	0	0	0	0	0	0	0	1	1	0	0	0.0393701
2840	100%	1	0	0	0	0	0	0	0	1	1	0	0	0.0393701
4010	100%	8	0	0	0	0	0	0	0	8	8	0	0	0.0393701
4020	100%	9	0	0	0	0	0	0	0	9	9	0	0	0.0393701
4030	75%	9	2	1	0	0	0	0	0	12	16	4	0	0.0393701
4040	87%	11	2	0	0	0	0	0	0	13	15	2	0	0.0393701
4050	80%	12	4	0	0	0	0	0	0	16	20	4	0	0.0393701
4060	72%	9	3	1	0	0	0	0	0	13	18	5	0	0.0393701
4070	90%	17	0	1	0	0	0	0	0	18	20	2	0	0.0393701
4080	82%	11	3	0	0	0	0	0	0	14	17	3	0	0.0393701
4090	89%	7	1	0	0	0	0	0	0	8	9	1	0	0.0393701
4100	92%	11	1	0	0	0	0	0	0	12	13	1	0	0.0393701
4110	89%	7	1	0	0	0	0	0	0	8	9	1	0	0.0393701
4130	86%	5	1	0	0	0	0	0	0	6	7	1	0	0.0393701
4140	100%	10	0	0	0	0	0	0	0	10	10	0	0	0.0393701
4150	75%	4	2	0	0	0	0	0	0	6	8	2	0	0.0393701
4160	85%	9	2	0	0	0	0	0	0	11	13	2	0	0.0393701
4170	94%	15	1	0	0	0	0	0	0	16	17	1	0	0.0393701
4180	94%	16	1	0	0	0	0	0	0	17	18	1	0	0.0393701
4190	100%	5	0	0	0	0	0	0	0	5	5	0	0	0.0393701
4200	100%	14	0	0	0	0	0	0	0	14	14	0	0	0.0393701
4220	100%	12	0	0	0	0	0	0	0	12	12	0	0	0.0393701
4230	100%	16	0	0	0	0	0	0	0	16	16	0	0	0.0393701
4240	100%	8	0	0	0	0	0	0	0	8	8	0	0	0.0393701
4250	71%	3	2	0	0	0	0	0	0	5	7	2	0	0.0393701
4260	100%	8	0	0	0	0	0	0	0	8	8	0	0	0.0393701
4270	100%	11	0	0	0	0	0	0	0	11	11	0	0	0.0393701
4290	100%	10	0	0	0	0	0	0	0	10	10	0	0	0.0393701
4300	100%	4	0	0	0	0	0	0	0	4	4	0	0	0.0393701
4310	100%	1	0	0	0	0	0	0	0	1	1	0	0	0.0393701
4330	67%	1	1	0	0	0	0	0	0	2	3	1	0	0.0393701
4340	100%	4	0	0	0	0	0	0	0	4	4	0	0	0.0393701
4350	100%	5	0	0	0	0	0	0	0	5	5	0	0	0.0393701
4360	93%	25	2	0	0	0	0	0	0	27	29	2	0	0.0393701
4510	100%	1	0	0	0	0	0	0	0	1	1	0	0	0.0393701
4520	75%	2	1	0	0	0	0	0	0	3	4	1	0	0.0393701
4530	93%	25	2	0	0	0	0	0	0	27	29	2	0	0.0393701
4550	94%	14	1	0	0	0	0	0	0	15	16	1	0	0.0393701
4570	83%	4	1	0	0	0	0	0	0	5	6	1	0	0.0393701
4710	75%	7	1	1	0	0	0	0	0	9	12	3	0	0.0393701
4730	100%	5	0	0	0	0	0	0	0	5	5	0	0	0.0393701
4750	89%	15	2	0	0	0	0	0	0	17	19	2	0	0.0393701
4770	89%	7	1	0	0	0	0	0	0	8	9	1	0	0.0393701
4790	100%	1	0	0	0	0	0	0	0	1	1	0	0	0.0393701
4810	67%	9	4	0	1	0	0	1	15	28	7	0	0.0393701	
4820	94%	30	2	0	0	0	0	0	32	34	2	0	0.0393701	
4830	90%	17	2	0	0	0	0	0	19	21	2	0	0.0393701	
4840	100%	14	0	0	0	0	0	0	14	14	0	0	0.0393701	
Total Tips		1223	155	17	4	0	0	3	1402	1623				

# General System Analysis

**Database Name** P:\A207-UDFCD-Data-Analysis\2004 Storms Analysis\Novastar\_extract\_0723.mdb

**First Date in Database** 7/23/04 12:00 AM  
**Last Date in Database** 7/23/04 11:59 PM

<b>Total Days</b>	1.0
<b>Total Hours</b>	24.0

**Total Records Analyzed** 5573

**Records by Group**

Precipitation	2793	50%
Water Level PT-HSE	2304	41%
Water Level PT	255	5%
Precipitation - Mean	52	1%
Battery Voltage HSE	35	1%
Longmont Flow Gage	30	1%
Handar 585 ALARM Status	28	1%
Water Level Float	25	0%
Battery Voltage Digital	21	0%
Barometric Pressure	17	0%
12Hr Status Report	8	0%
Battery Voltage Analog	2	0%
Longmont Water Level PT	2	0%
Wind Speed Average & Azimuth	1	0%
<b>Total</b>	<b>5573</b>	

**Records by Major Group**

Rain Sensors	2793	50%
Water Level Sensors	2616	47%
Sensor Status Transmissions	94	2%
Meteorologic Sensors	18	0%
Soil and Fuel Sensors	0	0%
<b>Total</b>	<b>5521</b>	

**Records by Validation Type**

Good	0	5520	99%
Questionable	1	53	1%
<b>Total</b>		<b>5573</b>	

**Sensors With Most Invalid Data**

Description	Sensor	Reports
Geer Canyon	4250	10
Havana Park	503	7
No Name @ Quincy	733	7
Bear Creek @ Lowell	1535	4
Red Hill	4290	4

**Traffic Loading Summary**

Alert Reports	5573	
Average Daily Traffic	5573	
Average Hourly Traffic	232	
Median Hourly Traffic	181	hour beginning
Peak Hourly Traffic	646	7/23/04 2:00 PM

Rain Event Performance		Reports Received	2353	Analyze Rain Sensors											
23-Jul-07		Systemwide Avg	Total Tips												
		88%	Data Loss												
Rain Sensor	Total Performance	1-tips	2-tips	3-tips	4-tips	5-tips	6-tips	>6-tips	Received	Expected	Missed	Hold-off	Bucket		
100	72%	9	3	1	0	0	0	0	13	18	5	0	0.0393701		
120	92%	21	2	0	0	0	0	0	23	25	2	0	0.0393701		
140	100%	18	0	0	0	0	0	0	18	18	0	0	0.0393701		
150	75%	4	2	0	0	0	0	0	6	8	2	0	0.0393701		
200	100%	15	0	0	0	0	0	0	15	15	0	0	0.0393701		
210	75%	4	2	0	0	0	0	0	6	8	2	0	0.0393701		
220	95%	18	1	0	0	0	0	0	19	20	1	0	0.0393701		
300	100%	12	0	0	0	0	0	0	12	12	0	0	0.0393701		
310	67%	3	0	1	0	0	0	0	4	6	2	0	0.0393701		
320	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701		
330	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701		
400	77%	12	5	0	0	0	0	0	17	22	5	0	0.0393701		
410	79%	17	6	0	0	0	0	0	23	29	6	0	0.0393701		
420	93%	12	1	0	0	0	0	0	13	14	1	0	0.0393701		
430	71%	8	3	1	0	0	0	0	12	17	5	0	0.0393701		
440	100%	17	0	0	0	0	0	0	17	17	0	0	0.0393701		
500	87%	23	2	1	0	0	0	0	26	30	4	0	0.0393701		
510	82%	15	2	1	0	0	0	0	18	22	4	0	0.0393701		
520	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701		
530	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701		
540	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701		
600	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701		
610	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701		
620	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
630	71%	3	2	0	0	0	0	0	5	7	2	0	0.0393701		
640	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701		
700	84%	29	7	0	0	0	0	0	36	43	7	0	0.0393701		
710	81%	13	4	0	0	0	0	0	17	21	4	0	0.0393701		
720	88%	20	1	1	0	0	0	0	22	25	3	0	0.0393701		
730	85%	36	3	2	0	0	0	0	41	48	7	3	0.0393701		
740	94%	28	0	1	0	0	0	0	29	31	2	0	0.0393701		
750	83%	15	4	0	0	0	0	0	19	23	4	0	0.0393701		
760	73%	16	5	0	1	0	0	0	22	30	8	0	0.0393701		
800	80%	19	4	1	0	0	0	1	25	37	6	0	0.0393701		
810	79%	27	4	1	1	0	0	0	33	42	9	0	0.0393701		
820	88%	26	1	0	1	0	0	0	28	32	4	0	0.0393701		
830	77%	21	5	0	1	0	0	0	27	35	8	0	0.0393701		
840	83%	20	3	1	0	0	0	0	24	29	5	0	0.0393701		
850	70%	13	5	0	1	0	0	0	19	27	8	0	0.0393701		
870	81%	39	7	2	0	0	0	0	48	59	11	2	0.0393701		
900	81%	20	6	0	0	0	0	0	26	32	6	1	0.0393699		
1000	100%	12	0	0	0	0	0	0	12	12	0	0	0.0393701		
1010	100%	9	0	0	0	0	0	0	9	9	0	0	0.0393701		
1030	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701		
1040	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701		
1050	100%	9	0	0	0	0	0	0	9	9	0	0	0.0393701		
1060	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701		
1100	94%	32	2	0	0	0	0	0	34	36	2	0	0.0393701		
1110	93%	23	2	0	0	0	0	0	25	27	2	0	0.0393701		
1200	92%	42	4	0	0	0	0	0	46	50	4	0	0.0393701		
1300	67%	2	2	0	0	0	0	0	4	6	2	0	0.0393701		
1310	94%	15	1	0	0	0	0	0	16	17	1	0	0.0393701		
1320	60%	2	0	1	0	0	0	0	3	5	2	0	0.0393701		
1330	93%	38	1	1	0	0	0	0	40	43	3	0	0.0393701		
1340	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701		
1350	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
1360	85%	9	2	0	0	0	0	0	11	13	2	0	0.0393701		
1370	50%	0	1	0	0	0	0	0	1	2	1	0	0.0393701		
1400	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701		
1420	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701		
1440	75%	6	3	0	0	0	0	0	9	12	3	0	0.0393701		
1480	71%	3	2	0	0	0	0	0	5	7	2	0	0.0393701		
1500	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701		
1520	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
1530	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701		
1600	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701		
1620	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701		
1640	57%	2	1	1	0	0	0	0	4	7	3	0	0.0393701		
1660	100%	13	0	0	0	0	0	0	13	13	0	0	0.0393701		
1700	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701		
1710	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701		

1720	100%	3	0	0	0	0	0	0	0	3	3	0	0	0.0393701
1800	74%	21	4	3	0	0	0	0	0	28	38	10	0	0.0393701
1810	81%	17	3	1	0	0	0	0	0	21	26	5	0	0.0393701
1900	91%	52	6	0	0	0	0	0	0	58	64	6	2	0.0393701
1920	85%	9	2	0	0	0	0	0	0	11	13	2	0	0.0393701
2190	92%	20	2	0	0	0	0	0	0	22	24	2	0	0.0393701
2210	100%	8	0	0	0	0	0	0	0	8	8	0	0	0.0393701
2230	73%	9	1	0	1	0	0	0	0	11	15	4	0	0.0393701
2240	100%	4	0	0	0	0	0	0	0	4	4	0	0	0.0393701
2250	100%	10	0	0	0	0	0	0	0	10	10	0	0	0.0393701
2260	85%	9	2	0	0	0	0	0	0	11	13	2	0	0.0393701
2270	85%	10	0	1	0	0	0	0	0	11	13	2	0	0.0393701
2280	77%	8	1	1	0	0	0	0	0	10	13	3	0	0.0393701
2310	100%	4	0	0	0	0	0	0	0	4	4	0	0	0.0393701
2320	86%	5	1	0	0	0	0	0	0	6	7	1	0	0.0393701
2330	100%	2	0	0	0	0	0	0	0	2	2	0	0	0.0393701
2340	83%	4	1	0	0	0	0	0	0	5	6	1	0	0.0393701
2350	50%	0	1	0	0	0	0	0	0	1	2	1	0	0.0393701
2360	100%	6	0	0	0	0	0	0	0	6	6	0	0	0.0393701
2370	100%	2	0	0	0	0	0	0	0	2	2	0	0	0.0393701
2710	100%	3	0	0	0	0	0	0	0	3	3	0	0	0.0393701
2730	80%	3	1	0	0	0	0	0	0	4	5	1	0	0.0393701
2750	100%	5	0	0	0	0	0	0	0	5	5	0	0	0.0393701
2810	100%	6	0	0	0	0	0	0	0	6	6	0	0	0.0393701
2820	83%	4	1	0	0	0	0	0	0	5	6	1	0	0.0393701
2830	100%	3	0	0	0	0	0	0	0	3	3	0	0	0.0393701
2840	100%	5	0	0	0	0	0	0	0	5	5	0	0	0.0393701
4010	95%	18	1	0	0	0	0	0	0	19	20	1	0	0.0393701
4020	89%	14	2	0	0	0	0	0	0	16	18	2	0	0.0393701
4030	83%	8	2	0	0	0	0	0	0	10	12	2	0	0.0393701
4040	94%	16	1	0	0	0	0	0	0	17	18	1	0	0.0393701
4050	92%	11	1	0	0	0	0	0	0	12	13	1	0	0.0393701
4060	94%	14	1	0	0	0	0	0	0	15	16	1	0	0.0393701
4070	92%	22	2	0	0	0	0	0	0	24	26	2	0	0.0393701
4080	96%	22	1	0	0	0	0	0	0	23	24	1	0	0.0393701
4090	86%	15	3	0	0	0	0	0	0	18	21	3	0	0.0393701
4100	84%	13	3	0	0	0	0	0	0	16	19	3	0	0.0393701
4110	100%	21	0	0	0	0	0	0	0	21	21	0	0	0.0393701
4130	84%	13	3	0	0	0	0	0	0	16	19	3	0	0.0393701
4140	88%	12	2	0	0	0	0	0	0	14	16	2	0	0.0393701
4150	89%	15	2	0	0	0	0	0	0	17	19	2	0	0.0393701
4160	88%	20	1	1	0	0	0	0	0	22	25	3	0	0.0393701
4170	91%	36	4	0	0	0	0	0	0	40	44	4	0	0.0393701
4180	87%	17	3	0	0	0	0	0	0	20	23	3	0	0.0393701
4190	97%	33	1	0	0	0	0	0	0	34	35	1	0	0.0393701
4200	89%	36	3	1	0	0	0	0	0	40	45	5	0	0.0393701
4220	47%	3	4	1	0	1	0	0	0	9	19	10	0	0.0393701
4230	86%	21	4	0	0	0	0	0	0	25	29	4	0	0.0393701
4240	88%	13	2	0	0	0	0	0	0	15	17	2	0	0.0393701
4250	54%	12	3	3	3	0	0	0	0	21	39	18	0	0.0393701
4260	100%	19	0	0	0	0	0	0	0	19	19	0	0	0.0393701
4270	100%	24	0	0	0	0	0	0	0	24	24	0	0	0.0393701
4290	74%	22	7	2	0	0	0	0	0	31	42	11	0	0.0393701
4300	100%	17	0	0	0	0	0	0	0	17	17	0	0	0.0393701
4310	96%	22	1	0	0	0	0	0	0	23	24	1	0	0.0393701
4330	90%	33	4	0	0	0	0	0	0	37	41	4	0	0.0393701
4340	95%	19	1	0	0	0	0	0	0	20	21	1	0	0.0393701
4350	95%	18	1	0	0	0	0	0	0	19	20	1	0	0.0393701
4360	97%	29	1	0	0	0	0	0	0	30	31	1	0	0.0393701
4470	69%	18	3	2	0	1	0	0	0	24	35	11	0	0.0393701
4490	100%	45	0	0	0	0	0	0	0	45	45	0	0	0.0393701
4510	80%	33	7	0	1	0	0	0	0	41	51	10	0	0.0393701
4520	90%	32	4	0	0	0	0	0	0	36	40	4	0	0.0393701
4530	84%	13	3	0	0	0	0	0	0	16	19	3	0	0.0393701
4550	93%	38	3	0	0	0	0	0	0	41	44	3	0	0.0393701
4570	96%	21	1	0	0	0	0	0	0	22	23	1	0	0.0393701
4710	95%	20	1	0	0	0	0	0	0	21	22	1	0	0.0393701
4730	94%	14	1	0	0	0	0	0	0	15	16	1	0	0.0393701
4750	93%	25	2	0	0	0	0	0	0	27	29	2	0	0.0393701
4770	90%	17	2	0	0	0	0	0	0	19	21	2	0	0.0393701
4790	91%	19	2	0	0	0	0	0	0	21	23	2	0	0.0393701
4810	91%	30	0	0	1	0	0	0	0	31	34	3	0	0.0393701
4820	93%	25	2	0	0	0	0	0	0	27	29	2	0	0.0393701
Total Tips		2068	239	33	11	2	0	1		2354	2706	346		



# General System Analysis

**Database Name** P:\A207-UDFCD-Data-Analysis\2004 Storms Analysis\Novastar\_extract\_0818.mdb

**First Date in Database** 8/18/04 12:00 AM  
**Last Date in Database** 8/18/04 11:59 PM

<b>Total Days</b>	1.0
<b>Total Hours</b>	24.0

**Total Records Analyzed** 8877

**Records by Group**

Precipitation	5569	63%
Water Level PT-HSE	2746	31%
Precipitation - Mean	212	2%
Water Level PT	176	2%
Water Level Float	39	0%
Battery Voltage HSE	30	0%
Handar 585 ALARM Status	28	0%
Barometric Pressure	24	0%
Battery Voltage Digital	22	0%
Longmont Flow Gage	16	0%
12Hr Status Report	8	0%
Wind Speed Average & Azimuth	3	0%
Battery Voltage Analog	2	0%
Longmont Water Level PT	2	0%
<b>Total</b>	<b>8877</b>	

**Records by Major Group**

Rain Sensors	5781	65%
Water Level Sensors	2979	34%
Sensor Status Transmissions	90	1%
Meteorologic Sensors	27	0%
Soil and Fuel Sensors	0	0%
<b>Total</b>	<b>8877</b>	

**Records by Validation Type**

Good	0	8799	99%
Questionable	1	78	1%
<b>Total</b>		<b>8877</b>	

**Sensors With Most Invalid Data**

Description	Sensor	Reports
Holly Dam	1613	19
Slaughterhouse Glch	1623	8
Niver Detention	1903	5
Powers Park	1503	4
Confluence Pond	724	3

**Traffic Loading Summary**

Alert Reports	8877	
Average Daily Traffic	8877	
Average Hourly Traffic	370	
Median Hourly Traffic	63	hour beginning
Peak Hourly Traffic	1175	8/18/04 6:00 PM

Rain Event Performance															
18-Aug-07		Reports Received	4894	Analyze Rain Sensors											
Systemwide Avg		Total Tips	6110												
81%		Data Loss	19.90%												
Rain Sensor	Total Performance	1-tips	2-tips	3-tips	4-tips	5-tips	6-tips	>6-tips	Received	Expected	Missed	Hold-off	Bucket		
100	84%	30	7	0	0	0	0	0	37	44	7	0	0.0393701		
110	84%	21	5	0	0	0	0	0	26	31	5	0	0.0393701		
120	85%	25	3	1	0	0	0	0	29	34	5	0	0.0393701		
140	85%	34	7	0	0	0	0	0	41	48	7	0	0.0393701		
150	83%	21	3	1	0	0	0	0	25	30	5	0	0.0393701		
200	96%	23	1	0	0	0	0	0	24	25	1	0	0.0393701		
210	90%	24	3	0	0	0	0	0	27	30	3	0	0.0393701		
220	76%	16	1	1	1	0	0	0	19	25	6	0	0.0393701		
300	81%	19	6	0	0	0	0	0	25	31	6	0	0.0393701		
310	88%	25	4	0	0	0	0	0	29	33	4	0	0.0393701		
320	92%	30	3	0	0	0	0	0	33	36	3	0	0.0393701		
330	66%	14	2	1	2	0	0	0	19	29	10	0	0.0393701		
400	69%	26	12	3	0	0	0	0	41	59	18	0	0.0393701		
410	87%	39	5	1	0	0	0	0	45	52	7	0	0.0393701		
420	76%	31	5	2	1	0	0	0	39	51	12	0	0.0393701		
430	82%	11	3	0	0	0	0	0	14	17	3	0	0.0393701		
440	76%	35	5	3	1	0	0	0	44	58	14	0	0.0393701		
500	76%	33	8	0	0	0	1	0	42	55	13	0	0.0393701		
510	69%	24	9	2	1	0	0	0	36	52	16	0	0.0393701		
520	82%	38	4	3	0	0	0	0	45	55	10	0	0.0393701		
530	79%	44	7	2	1	0	0	0	54	68	14	0	0.0393701		
540	67%	21	12	1	1	0	0	0	35	52	17	0	0.0393701		
600	90%	39	3	1	0	0	0	0	43	48	5	0	0.0393701		
610	82%	37	10	0	0	0	0	0	47	57	10	0	0.0393701		
620	80%	27	4	2	0	0	0	0	33	41	8	0	0.0393701		
630	67%	18	5	1	2	0	0	0	26	39	13	0	0.0393701		
640	83%	46	12	0	0	0	0	0	58	70	12	0	0.0393701		
700	73%	30	8	2	1	0	0	0	41	56	15	0	0.0393701		
710	80%	34	9	1	0	0	0	0	44	55	11	0	0.0393701		
720	88%	36	6	0	0	0	0	0	42	48	6	0	0.0393701		
730	78%	28	9	1	0	0	0	0	38	49	11	0	0.0393701		
740	89%	63	7	1	0	0	0	0	71	80	9	0	0.0393701		
750	78%	27	6	2	0	0	0	0	35	45	10	0	0.0393701		
760	75%	30	12	1	0	0	0	0	43	57	14	0	0.0393701		
800	69%	30	5	2	3	0	0	0	40	58	18	0	0.0393701		
810	76%	33	9	1	1	0	0	0	44	58	14	0	0.0393701		
820	63%	19	6	4	0	1	0	0	30	48	18	0	0.0393701		
830	90%	40	5	0	0	0	0	0	45	50	5	0	0.0393701		
840	69%	38	14	2	1	1	0	0	56	81	25	0	0.0393701		
850	57%	22	19	4	1	0	1	0	47	82	35	0	0.0393701		
870	78%	28	6	2	0	0	0	0	36	46	10	0	0.0393701		
900	79%	25	7	1	0	0	0	0	33	42	9	0	0.0393699		
1000	92%	30	3	0	0	0	0	0	33	36	3	0	0.0393701		
1010	93%	40	3	0	0	0	0	0	43	46	3	0	0.0393701		
1030	79%	25	7	1	0	0	0	0	33	42	9	0	0.0393701		
1040	78%	23	2	3	0	0	0	0	28	36	8	0	0.0393701		
1050	86%	27	5	0	0	0	0	0	32	37	5	0	0.0393701		
1060	77%	23	6	0	1	0	0	0	30	39	9	0	0.0393701		
1100	76%	23	6	2	0	0	0	0	31	41	10	0	0.0393701		
1110	88%	25	4	0	0	0	0	0	29	33	4	0	0.0393701		
1200	95%	33	2	0	0	0	0	0	35	37	2	0	0.0393701		
1300	77%	25	6	2	0	0	0	0	33	43	10	0	0.0393701		
1310	88%	38	4	1	0	0	0	0	43	49	6	0	0.0393701		
1320	86%	66	9	2	0	0	0	0	77	90	13	0	0.0393701		
1330	81%	42	8	2	0	0	0	0	52	64	12	0	0.0393701		
1340	79%	31	5	1	1	0	0	0	38	48	10	0	0.0393701		
1350	74%	18	7	1	0	0	0	0	26	35	9	0	0.0393701		
1360	77%	70	21	4	0	0	0	0	95	124	29	0	0.0393701		
1370	77%	22	7	1	0	0	0	0	30	39	9	0	0.0393701		
1400	83%	24	6	0	0	0	0	0	30	36	6	0	0.0393701		
1420	70%	32	13	1	2	0	0	0	48	69	21	0	0.0393701		
1440	67%	8	1	0	0	1	0	0	10	15	5	0	0.0393701		
1480	69%	16	5	3	0	0	0	0	24	35	11	0	0.0393701		
1500	83%	27	5	1	0	0	0	0	33	40	7	0	0.0393701		
1520	74%	28	6	2	1	0	0	0	37	50	13	0	0.0393701		
1530	66%	22	10	2	0	1	0	0	35	53	18	0	0.0393701		
1600	70%	25	9	2	1	0	0	0	37	53	16	0	0.0393701		
1620	75%	21	3	3	0	0	0	0	27	36	9	0	0.0393701		
1640	71%	21	6	3	0	0	0	0	30	42	12	0	0.0393701		
1660	60%	8	5	1	1	0	0	0	15	25	10	0	0.0393701		
1700	79%	50	10	2	1	0	0	0	63	80	17	0	0.0393701		
1710	78%	32	6	1	1	0	0	0	40	51	11	0	0.0393701		

1720	66%	25	10	4	1	0	0	0	40	61	21	0	0.0393701
1800	73%	32	7	3	1	0	0	0	43	59	16	0	0.0393701
1810	82%	39	6	2	0	0	0	0	47	57	10	0	0.0393701
1900	80%	29	5	2	0	0	0	0	36	45	9	0	0.0393701
1920	78%	17	3	0	1	0	0	0	21	27	6	0	0.0393701
2190	80%	25	6	1	0	0	0	0	32	40	8	0	0.0393701
2210	95%	18	1	0	0	0	0	0	19	20	1	0	0.0393701
2230	73%	8	2	1	0	0	0	0	11	15	4	0	0.0393701
2240	92%	10	1	0	0	0	0	1	12	19	1	0	0.0393701
2250	80%	6	2	0	0	0	0	0	8	10	2	0	0.0393701
2260	76%	20	7	1	0	0	0	0	28	37	9	0	0.0393701
2270	88%	13	0	1	0	0	0	0	14	16	2	0	0.0393701
2280	81%	11	1	1	0	0	0	0	13	16	3	0	0.0393701
2310	50%	0	1	0	0	0	0	0	1	2	1	0	0.0393701
2320	79%	20	0	3	0	0	0	0	23	29	6	0	0.0393701
2330	71%	7	2	1	0	0	0	1	11	21	4	0	0.0393701
2340	85%	19	4	0	0	0	0	0	23	27	4	0	0.0393701
2350	80%	27	7	1	0	0	0	0	35	44	9	0	0.0393701
2370	79%	23	3	0	0	1	0	0	27	34	7	0	0.0393701
2710	79%	15	3	1	0	0	0	0	19	24	5	0	0.0393701
2730	70%	26	1	1	2	1	0	1	32	51	13	0	0.0393701
2750	81%	46	9	2	0	0	0	0	57	70	13	0	0.0393701
2810	69%	24	6	5	0	0	0	0	35	51	16	0	0.0393701
2820	62%	18	11	2	0	0	1	0	32	52	20	0	0.0393701
2830	59%	22	7	3	2	0	1	1	36	66	24	0	0.0393701
2840	67%	23	9	1	2	0	0	0	35	52	17	0	0.0393701
4010	90%	35	2	1	0	0	0	0	38	42	4	0	0.0393701
4020	94%	31	2	0	0	0	0	0	33	35	2	0	0.0393701
4030	57%	8	2	2	0	1	0	1	14	39	10	0	0.0393701
4040	76%	21	7	1	0	0	0	0	29	38	9	0	0.0393701
4050	91%	19	2	0	0	0	0	0	21	23	2	0	0.0393701
4060	79%	16	1	2	0	0	0	0	19	24	5	0	0.0393701
4070	88%	40	2	2	0	0	0	0	44	50	6	0	0.0393701
4080	84%	26	6	0	0	0	0	0	32	38	6	0	0.0393701
4090	85%	24	5	0	0	0	0	0	29	34	5	0	0.0393701
4100	88%	36	6	0	0	0	0	0	42	48	6	0	0.0393701
4110	88%	37	4	1	0	0	0	0	42	48	6	0	0.0393701
4130	92%	20	2	0	0	0	0	0	22	24	2	0	0.0393701
4140	93%	24	2	0	0	0	0	0	26	28	2	0	0.0393701
4150	88%	24	4	0	0	0	0	0	28	32	4	0	0.0393701
4160	94%	33	0	1	0	0	0	0	34	36	2	0	0.0393701
4170	94%	45	3	0	0	0	0	0	48	51	3	0	0.0393701
4180	90%	17	2	0	0	0	0	0	19	21	2	0	0.0393701
4190	86%	31	6	0	0	0	0	0	37	43	6	0	0.0393701
4200	86%	53	7	0	1	0	0	0	61	71	10	0	0.0393701
4220	94%	31	2	0	0	0	0	0	33	35	2	0	0.0393701
4230	92%	33	1	1	0	0	0	0	35	38	3	0	0.0393701
4240	83%	8	2	0	0	0	0	0	10	12	2	0	0.0393701
4250	77%	32	9	2	0	0	0	0	43	56	13	0	0.0393701
4260	89%	14	2	0	0	0	0	0	16	18	2	0	0.0393701
4270	95%	35	2	0	0	0	0	0	37	39	2	0	0.0393701
4290	87%	45	6	1	0	0	0	0	52	60	8	0	0.0393701
4300	94%	15	1	0	0	0	0	0	16	17	1	0	0.0393701
4310	94%	29	2	0	0	0	0	0	31	33	2	0	0.0393701
4330	87%	46	6	1	0	0	0	0	53	61	8	0	0.0393701
4340	88%	25	2	1	0	0	0	0	28	32	4	0	0.0393701
4350	88%	38	6	0	0	0	0	0	44	50	6	0	0.0393701
4360	83%	32	8	0	0	0	0	0	40	48	8	0	0.0393701
4470	76%	21	5	2	0	0	0	0	28	37	9	0	0.0393701
4490	76%	9	4	0	0	0	0	0	13	17	4	0	0.0393701
4510	76%	11	5	0	0	0	0	0	16	21	5	0	0.0393701
4520	94%	15	1	0	0	0	0	0	16	17	1	0	0.0393701
4530	90%	16	2	0	0	0	0	0	18	20	2	0	0.0393701
4550	81%	41	6	3	0	0	0	0	50	62	12	0	0.0393701
4570	95%	18	1	0	0	0	0	0	19	20	1	0	0.0393701
4710	88%	13	2	0	0	0	0	0	15	17	2	0	0.0393701
4730	86%	22	2	1	0	0	0	0	25	29	4	0	0.0393701
4750	89%	45	4	1	0	0	0	0	50	56	6	0	0.0393701
4770	79%	24	5	0	1	0	0	0	30	38	8	0	0.0393701
4790	84%	21	5	0	0	0	0	0	26	31	5	0	0.0393701
4810	81%	26	3	0	0	1	0	0	30	37	7	0	0.0393701
4820	93%	38	1	1	0	0	0	0	40	43	3	0	0.0393701
4830	83%	34	4	2	0	0	0	0	40	48	8	0	0.0393701
4840	91%	36	2	1	0	0	0	0	39	43	4	0	0.0393701
Total Tips		3945	747	153	37	8	4	5	4899	6154	1216		

# General System Analysis

**Database Name** P:\A207-UDFCD-Data-Analysis\2004 Storms Analysis\Novastar\_extract\_0819.mdb

<b>First Date in Database</b>	8/19/04 12:00 AM
<b>Last Date in Database</b>	8/19/04 11:59 PM

<b>Total Days</b>	1.0
<b>Total Hours</b>	24.0

**Total Records Analyzed** 5264

**Records by Group**

Water Level PT-HSE	3194	61%
Precipitation	1655	31%
Water Level PT	179	3%
Precipitation - Mean	85	2%
Battery Voltage HSE	36	1%
Water Level Float	31	1%
Handar 585 ALARM Status	26	0%
Battery Voltage Digital	21	0%
Barometric Pressure	15	0%
Longmont Flow Gage	11	0%
12Hr Status Report	7	0%
Battery Voltage Analog	2	0%
Longmont Water Level PT	2	0%
<b>Total</b>	<b>5264</b>	

**Records by Major Group**

Water Level Sensors	3502	67%
Rain Sensors	1655	31%
Sensor Status Transmissions	92	2%
Meteorologic Sensors	15	0%
Soil and Fuel Sensors	0	0%
<b>Total</b>	<b>5264</b>	

**Records by Validation Type**

Good	0	5216	99%
Questionable	1	48	1%
<b>Total</b>		<b>5264</b>	

**Sensors With Most Invalid Data**

Description	Sensor	Reports
Third Creek at DIA	1484	21
Holly Dam	1613	7
Red Garden	4030	3
Hiwan G.C.	2210	2
Evergreen Lake	2223	2

**Traffic Loading Summary**

Alert Reports	5264	
Average Daily Traffic	5264	
Average Hourly Traffic	219	
Median Hourly Traffic	123	hour beginning
Peak Hourly Traffic	642	8/19/04 12:00 AM

Rain Event Performance		Reports Received	Analyze Rain Sensors											
19-Jun-07		1117												
Systemwide Avg		1236												
91%		Data Loss												
		9.63%												
Rain Sensor	Total Performance	1-tips	2-tips	3-tips	4-tips	5-tips	6-tips	>6-tips	Received	Expected	Missed	Hold-off	Bucket	
100	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701	
110	78%	5	2	0	0	0	0	0	7	9	2	0	0.0393701	
120	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701	
140	100%	17	0	0	0	0	0	0	17	17	0	0	0.0393701	
150	75%	6	3	0	0	0	0	0	9	12	3	0	0.0393701	
200	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
210	78%	5	2	0	0	0	0	0	7	9	2	0	0.0393701	
220	91%	9	1	0	0	0	0	0	10	11	1	0	0.0393701	
300	80%	6	2	0	0	0	0	0	8	10	2	0	0.0393701	
310	85%	9	2	0	0	0	0	0	11	13	2	1	0.0393701	
320	100%	10	0	0	0	0	0	0	10	10	0	0	0.0393701	
330	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701	
400	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701	
410	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
420	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
430	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
440	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
500	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701	
510	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
520	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
530	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701	
540	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
600	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701	
610	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701	
620	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
630	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
640	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701	
700	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
710	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
720	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
730	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
740	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
750	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
760	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701	
800	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
810	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
820	100%	1	0	0	0	0	0	0	1	1	0	0	0.0393701	
830	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
840	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
850	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
900	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393699	
1000	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701	
1010	85%	10	0	1	0	0	0	0	11	13	2	0	0.0393701	
1030	100%	13	0	0	0	0	0	0	13	13	0	0	0.0393701	
1040	87%	12	0	1	0	0	0	0	13	15	2	0	0.0393701	
1050	83%	8	2	0	0	0	0	0	10	12	2	0	0.0393701	
1060	88%	14	0	1	0	0	0	0	15	17	2	0	0.0393701	
1100	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
1110	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
1200	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
1300	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701	
1310	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701	
1320	89%	7	1	0	0	0	0	0	8	9	1	0	0.0393701	
1330	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
1340	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
1350	50%	2	0	0	1	0	0	0	3	6	3	0	0.0393701	
1360	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701	
1370	100%	11	0	0	0	0	0	0	11	11	0	0	0.0393701	
1400	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701	
1420	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701	
1440	50%	0	1	0	0	0	0	0	1	2	1	0	0.0393701	
1480	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
1500	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
1520	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701	
1530	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
1600	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	
1620	83%	4	1	0	0	0	0	0	5	6	1	0	0.0393701	
1640	60%	2	0	1	0	0	0	0	3	5	2	0	0.0393701	
1660	100%	2	0	0	0	0	0	0	2	2	0	0	0.0393701	
1700	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701	
1710	75%	2	1	0	0	0	0	0	3	4	1	0	0.0393701	
1720	57%	2	1	1	0	0	0	0	4	7	3	0	0.0393701	
1800	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701	

1810	67%	1	1	0	0	0	0	0	2	3	1	0	0.0393701
1900	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701
1920	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701
2190	100%	12	0	0	0	0	0	0	12	12	0	0	0.0393701
2230	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701
2240	92%	10	1	0	0	0	0	0	11	12	1	1	0.0393701
2250	92%	10	1	0	0	0	0	0	11	12	1	1	0.0393701
2260	100%	13	0	0	0	0	0	0	13	13	0	0	0.0393701
2270	86%	10	2	0	0	0	0	0	12	14	2	0	0.0393701
2280	100%	9	0	0	0	0	0	0	9	9	0	0	0.0393701
2310	100%	4	0	0	0	0	0	0	4	4	0	0	0.0393701
2320	88%	12	2	0	0	0	0	0	14	16	2	0	0.0393701
2330	92%	10	1	0	0	0	0	0	11	12	1	0	0.0393701
2340	82%	7	2	0	0	0	0	0	9	11	2	0	0.0393701
2350	100%	11	0	0	0	0	0	0	11	11	0	0	0.0393701
2360	100%	3	0	0	0	0	0	0	3	3	0	1	0.0393701
2370	93%	12	1	0	0	0	0	0	13	14	1	0	0.0393701
2710	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701
2730	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701
2750	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701
2810	71%	4	0	1	0	0	0	0	5	7	2	0	0.0393701
2820	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701
2830	80%	3	1	0	0	0	0	0	4	5	1	0	0.0393701
2840	100%	6	0	0	0	0	0	0	6	6	0	0	0.0393701
4010	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701
4020	89%	7	1	0	0	0	0	0	8	9	1	0	0.0393701
4030	50%	2	1	2	0	0	0	0	5	10	5	0	0.0393701
4040	92%	10	1	0	0	0	0	0	11	12	1	0	0.0393701
4050	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701
4060	100%	9	0	0	0	0	0	0	9	9	0	0	0.0393701
4070	85%	9	2	0	0	0	0	0	11	13	2	0	0.0393701
4080	80%	6	2	0	0	0	0	0	8	10	2	0	0.0393701
4090	100%	12	0	0	0	0	0	0	12	12	0	0	0.0393701
4100	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701
4110	100%	11	0	0	0	0	0	0	11	11	0	0	0.0393701
4130	100%	11	0	0	0	0	0	0	11	11	0	0	0.0393701
4140	100%	12	0	0	0	0	0	0	12	12	0	0	0.0393701
4150	100%	13	0	0	0	0	0	0	13	13	0	0	0.0393701
4160	100%	16	0	0	0	0	0	0	16	16	0	0	0.0393701
4170	100%	12	0	0	0	0	0	0	12	12	0	0	0.0393701
4180	93%	13	1	0	0	0	0	0	14	15	1	0	0.0393701
4190	93%	12	1	0	0	0	0	0	13	14	1	0	0.0393701
4200	100%	16	0	0	0	0	0	0	16	16	0	0	0.0393701
4220	85%	9	2	0	0	0	0	0	11	13	2	0	0.0393701
4230	100%	17	0	0	0	0	0	0	17	17	0	0	0.0393701
4240	91%	9	1	0	0	0	0	0	10	11	1	0	0.0393701
4250	58%	4	6	1	0	0	0	0	11	19	8	0	0.0393701
4260	100%	3	0	0	0	0	0	0	3	3	0	0	0.0393701
4270	100%	9	0	0	0	0	0	0	9	9	0	0	0.0393701
4290	71%	15	0	0	1	1	0	0	17	24	7	0	0.0393701
4300	100%	9	0	0	0	0	0	0	9	9	0	0	0.0393701
4310	92%	11	1	0	0	0	0	0	12	13	1	0	0.0393701
4330	100%	23	0	0	0	0	0	0	23	23	0	0	0.0393701
4340	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701
4350	87%	11	2	0	0	0	0	0	13	15	2	0	0.0393701
4360	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701
4470	78%	10	4	0	0	0	0	0	14	18	4	0	0.0393701
4490	100%	14	0	0	0	0	0	0	14	14	0	0	0.0393701
4510	87%	11	2	0	0	0	0	0	13	15	2	0	0.0393701
4520	100%	13	0	0	0	0	0	0	13	13	0	0	0.0393701
4530	88%	6	1	0	0	0	0	0	7	8	1	0	0.0393701
4550	90%	8	1	0	0	0	0	0	9	10	1	0	0.0393701
4570	91%	9	1	0	0	0	0	0	10	11	1	0	0.0393701
4710	100%	14	0	0	0	0	0	0	14	14	0	0	0.0393701
4730	80%	6	2	0	0	0	0	0	8	10	2	0	0.0393701
4750	100%	5	0	0	0	0	0	0	5	5	0	0	0.0393701
4770	86%	10	2	0	0	0	0	0	12	14	2	0	0.0393701
4790	93%	12	1	0	0	0	0	0	13	14	1	0	0.0393701
4810	78%	5	2	0	0	0	0	0	7	9	2	0	0.0393701
4820	100%	7	0	0	0	0	0	0	7	7	0	0	0.0393701
4830	100%	8	0	0	0	0	0	0	8	8	0	0	0.0393701
4840	86%	5	1	0	0	0	0	0	6	7	1	0	0.0393701
Total Tips		1014	91	9	2	1	0	0	1117	1236	119	0	