

Acadia National Park Traffic Counter Data Summary 1990 – 2015
Sand Beach, Paradise Hill Rd, Schoodic
Charlie Jacobi
Natural Resources Report 2016 - 8

Because the park held a very incomplete record of traffic data, in 2013 I requested of FOTSC all the available Monthly Traffic Reports from 1990 to 2011 for Sand Beach, Schoodic, and the Paradise Hill Road. They were sent in printed format. There are many gaps in these reports throughout the 1990s. This summary was compiled by transcribing numbers from these Monthly Traffic reports (now available in the archives) and doing some simple data analyses in Excel. Some counts from the early 1990s were very high, much higher than other years. The park shutdown during the first 16 days in October also had a significant impact on peak daily and hourly counts for that month. I excluded October 2013 data from some of these analyses. Also remember that for Schoodic, there was traffic associated with the Navy Base and counts were much higher through the 1990s.

I think we can rely on these traffic counts, knowing that they are imperfect. For example, I have not validated them, and don't know if any other park staff or DSC staff have in the past. DSC staff review the data every month for anomalies, and I do as well. I did not test for statistical significance.

They are informative in two ways:

1. The magnitude of them gives us some understanding vehicle congestion in the park. In particular, peak daily and hourly counts illustrate the challenges of managing peak times at Acadia.
2. The long-term nature of the data collection allows us to look for trends.

I have summarized in tables and graphed some of this data for each of the three sites. Each site is different, and what appears to be the case for one of them (e.g. an increasing use trend) may not be true of another. I offer a few observations for each set of graphs.

The Sand Beach traffic counter is located just north of the entrance to the parking area.
The Schoodic traffic counter (now dead) is located between the Schoodic Woods entrance and the Frazer Creek causeway.
The Paradise Hill Road traffic counter is located at the power line crossing between the Route 233 overpass and the start of the one way road.

The following should help explain the table below:

- Mean of means is the mean of monthly mean traffic for the past 26 years and the past six years.
- Range of mean daily traffic represents the lowest mean daily traffic and the highest mean daily traffic for the past 26 years.
- Range of peak daily traffic represents the lowest peak daily traffic and the highest peak daily traffic over the past 26 years.
- Range of peak hourly traffic represents the lowest peak hourly traffic and the highest peak hourly traffic over the past 26 years. All were peak hourly traffic in their month and year.

Sand Beach	Mean of Means Daily Traffic 1990 – 2015	Mean of Means Daily Traffic 2010 – 2015	Range of Mean Daily Traffic 1990 – 2015	Range of Peak Daily Traffic: 1990 – 2015	Range of Peak Hourly Traffic 1990 – 2015
July	1949	2024	1620 - 2029	2248 - 3411	328 - 489
Aug	2189	2217	1820 - 2674	2385 - 4173	332 - 519
Sep	1436	1535	1159 - 1745	1653 - 3343	232 - 441
Oct	963	1063	557 - 1582	1291 - 2598	184 - 394

Schoodic	Mean of Means Daily Traffic 1990 – 2015	Mean of Means Daily Traffic 2010 – 2015	Range of Mean Daily Traffic 1990 – 2015	Range of Peak Daily Traffic 1990 – 2015	Range of Peak Hourly Traffic 1990 – 2015
July	546	473	428 - 920	569 - 1064	80 - 177
Aug	584	516	482 - 900	652 - 1355	100 - 152
Sep	388	364	257 - 666	357 - 1122	62 - 190
Oct	310	226	151 - 683	229 - 825	34 - 126

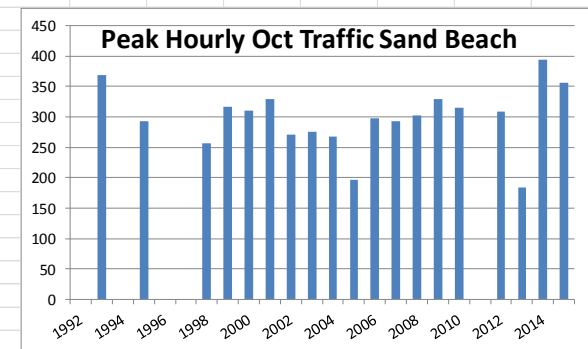
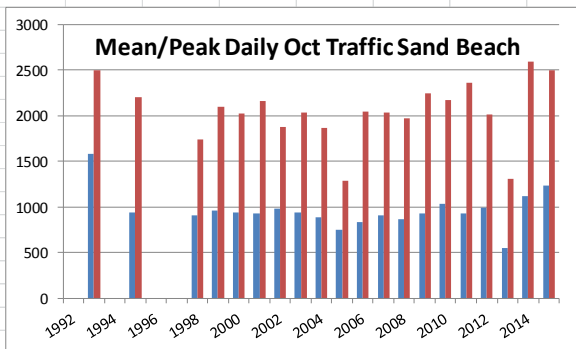
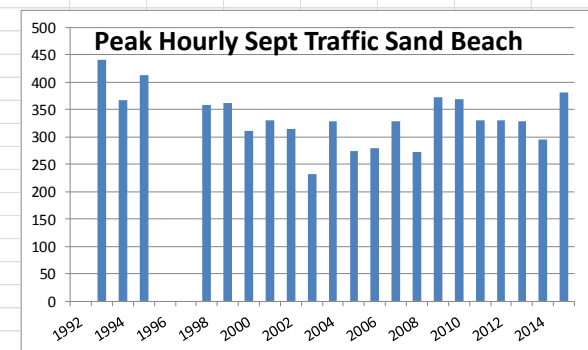
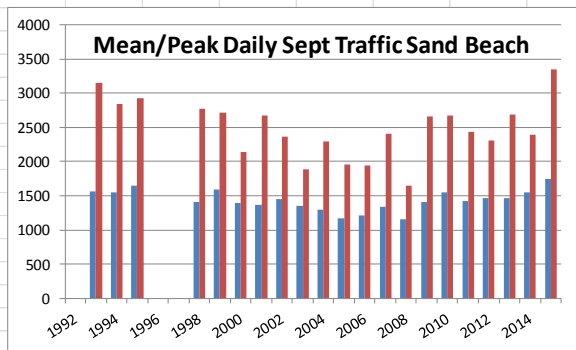
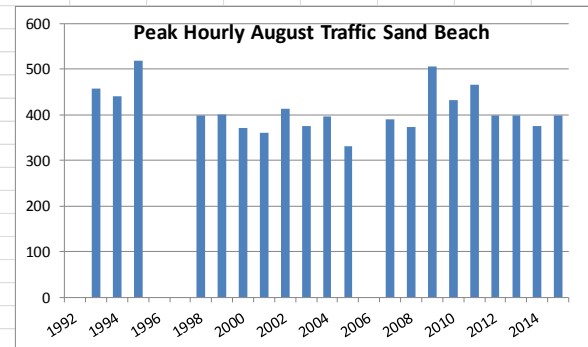
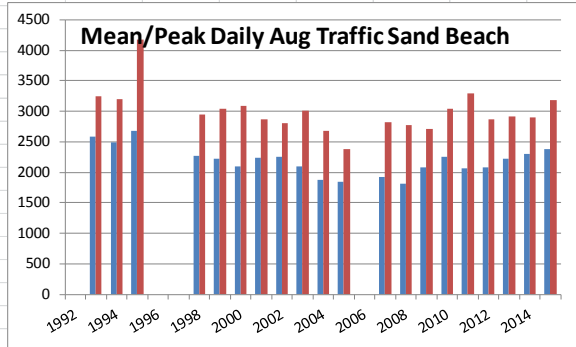
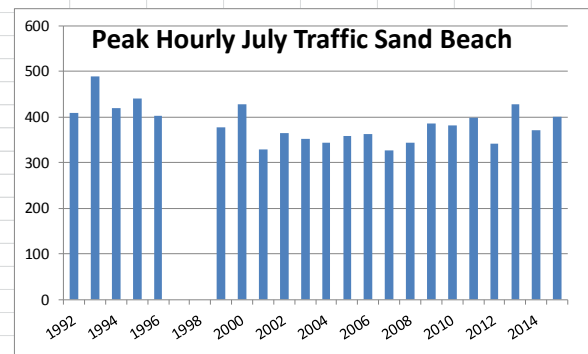
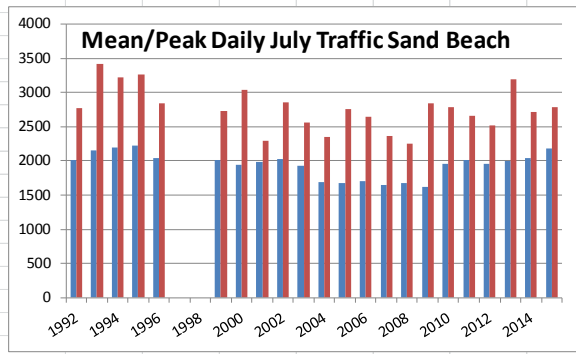
Para Hill North	Mean of Means Daily Traffic 1990 – 2015	Mean of Means Daily Traffic 2010 – 2015	Range of Mean Daily Traffic 1990 – 2015	Range of Peak Daily Traffic 1990 – 2015	Range of Peak Hourly Traffic 1990 – 2015
July	1988	2047	1588 - 2383	2112 - 3483	278 - 504
Aug	2184	2156	1613 - 2637	2350 - 3593	327 - 463
Sep	1564	1611	1285 - 1791	1864 - 3238	236 - 447
Oct	1057	1033	690 - 1257	1546 - 3200	229 - 483

Para Hill South	Mean of Means Daily Traffic 1990 – 2015	Mean of Means Daily Traffic 2010 – 2015	Range of Mean Daily Traffic 1990 – 2015	Range of Peak Daily Traffic 1990 – 2015	Range of Peak Hourly Traffic 1990 – 2015
July	2808	2850	2257 - 4774	3001 - 7898	456 - 797
Aug	3061	3198	2674 - 3395	3519 - 5091	557 - 792
Sep	2065	2230	1644 - 2480	2365 - 4718	378 - 678
Oct	1364	1447	858 - 1789	1983 - 4210	288 - 633

Sand Beach (next page). Tables on the left are mean and peak daily use for four months. Tables on the right are peak hourly use for four months.

Based on Mean Daily Traffic Counts, there appears to be a slight increasing use trend at the Sand Beach traffic counter for the past six years in July, August and September, and probably October if we ignore the 2013 shutdown.

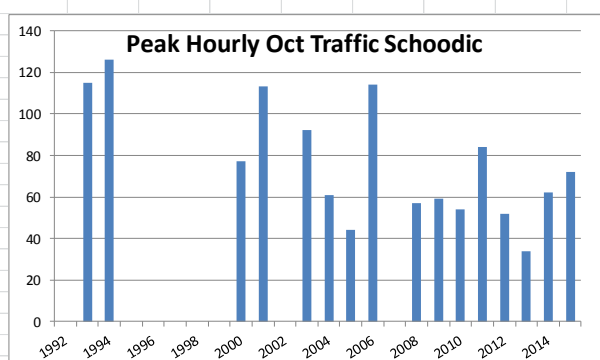
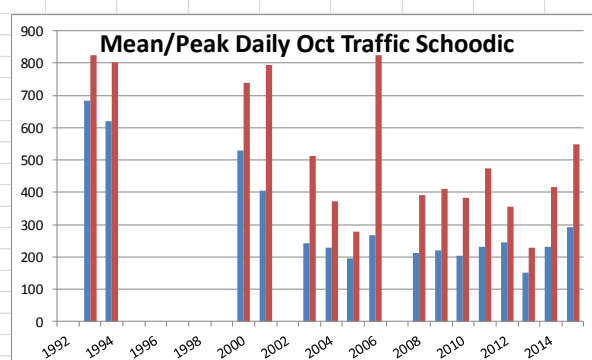
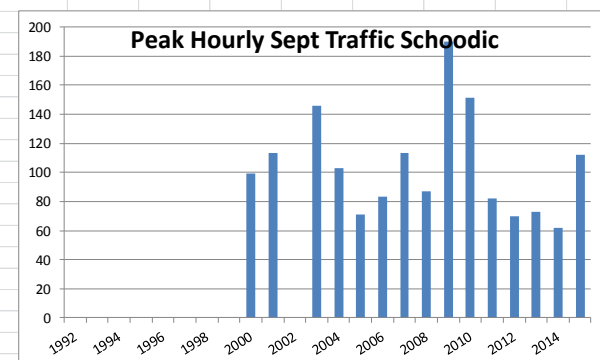
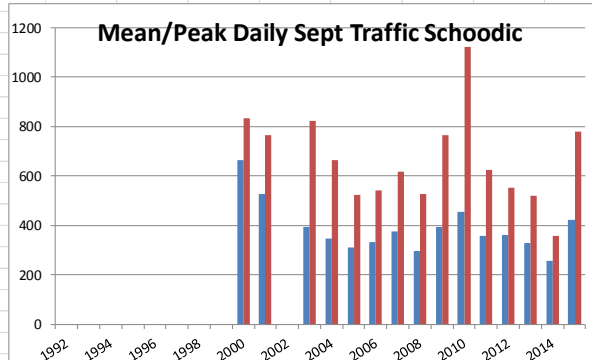
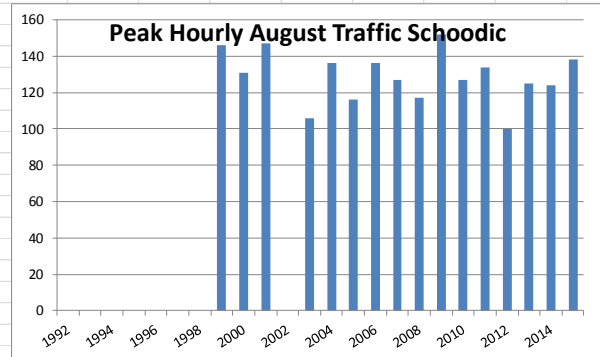
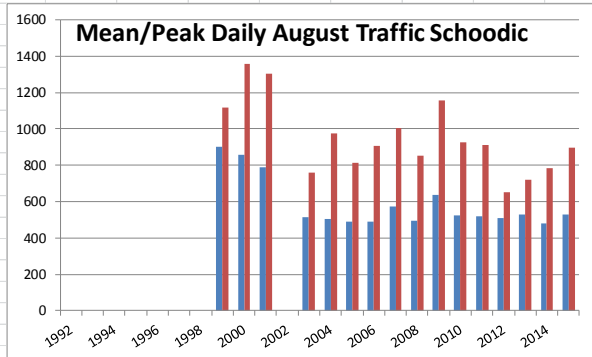
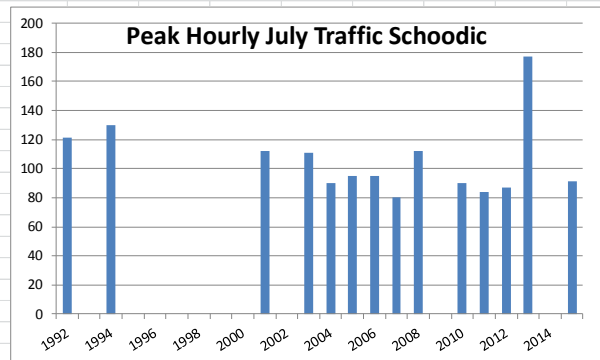
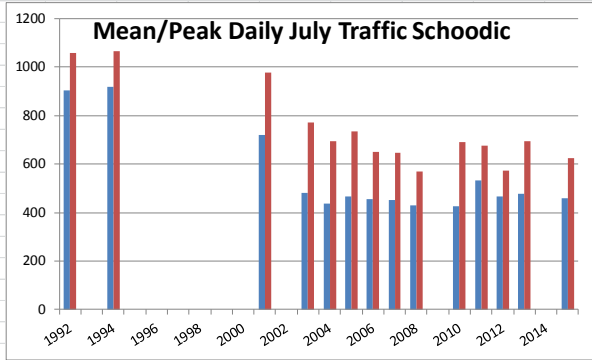
Peak Daily Traffic Counts in August are about 3,000 vehicles per day. Peak hourly traffic counts in August are about 400 vehicles per hour.



Schoodic (next page). Tables on the left are mean and peak daily use for four months. Tables on the right are peak hourly use for four months.

Based on Mean Daily Traffic Counts, there is no detectable use trend for the past six years at the Schoodic traffic counter in July or August. September appears to be decreasing in use and October perhaps increasing.

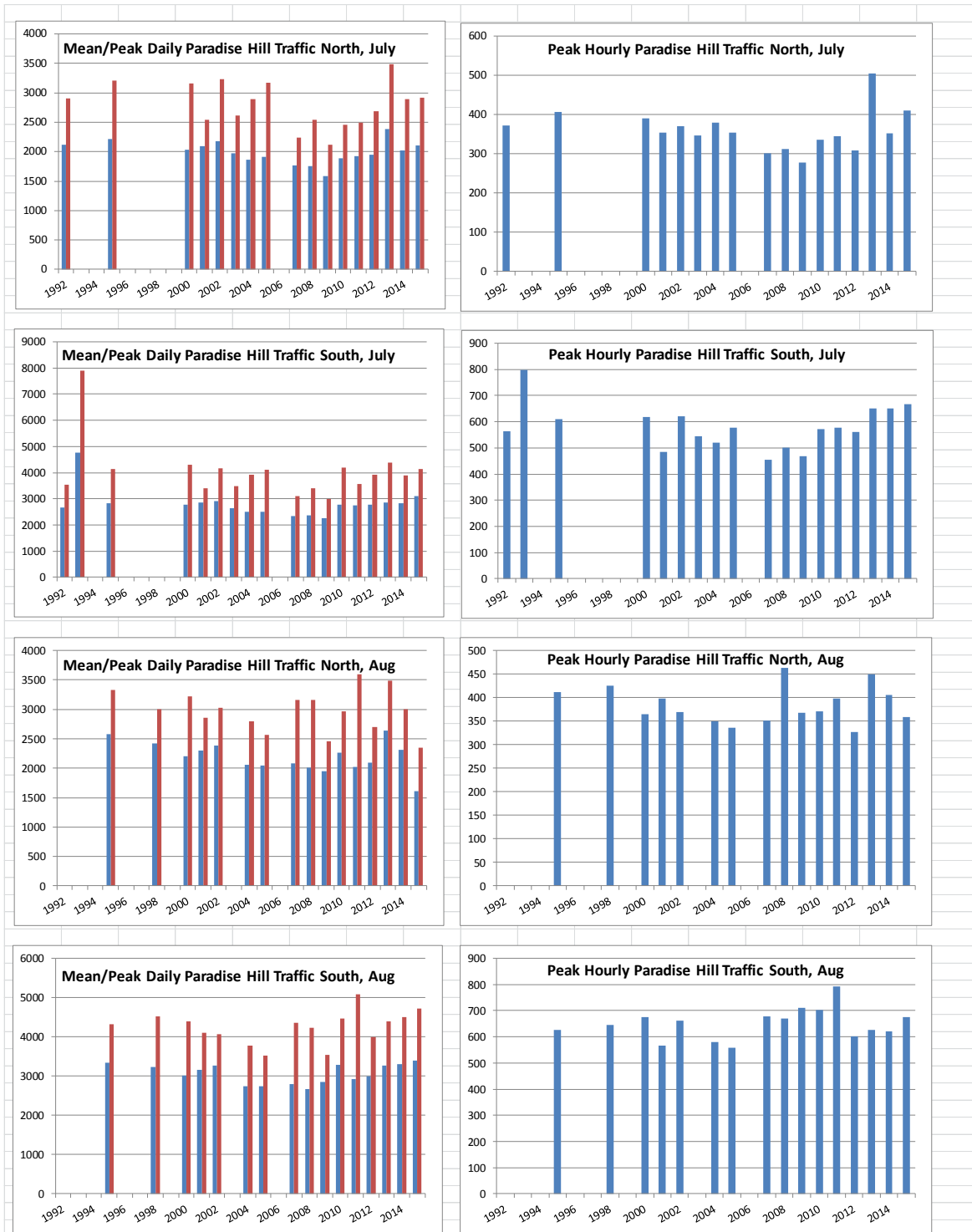
Peak Daily Traffic Counts in August are about 500 vehicles per day. Peak hourly traffic counts in August are about 130 vehicles per hour and represent the Winter Harbor Lobster Festival. 2015 data is from a temporary counter set up on the one way road.



Paradise Hill Northbound/Southbound July and August (next page). Tables on the left are mean and peak daily use. Tables on the right are peak hourly use. Tables are organized by month first, then northbound, then southbound.

Based on Mean Daily Traffic Counts, there is no detectable use trend for the past six years at the Paradise Hill traffic counter southbound (towards Cadillac Mountain and Jordan Pond) in July or northbound in August. There is a slight increasing trend northbound in July and southbound in August. In July, northbound traffic averages about 2,000 vehicles per day and southbound traffic about 2,500 vehicles per day. In August northbound traffic averages about 2,200 vehicles per day and southbound traffic is about 3,000 vehicles per day.

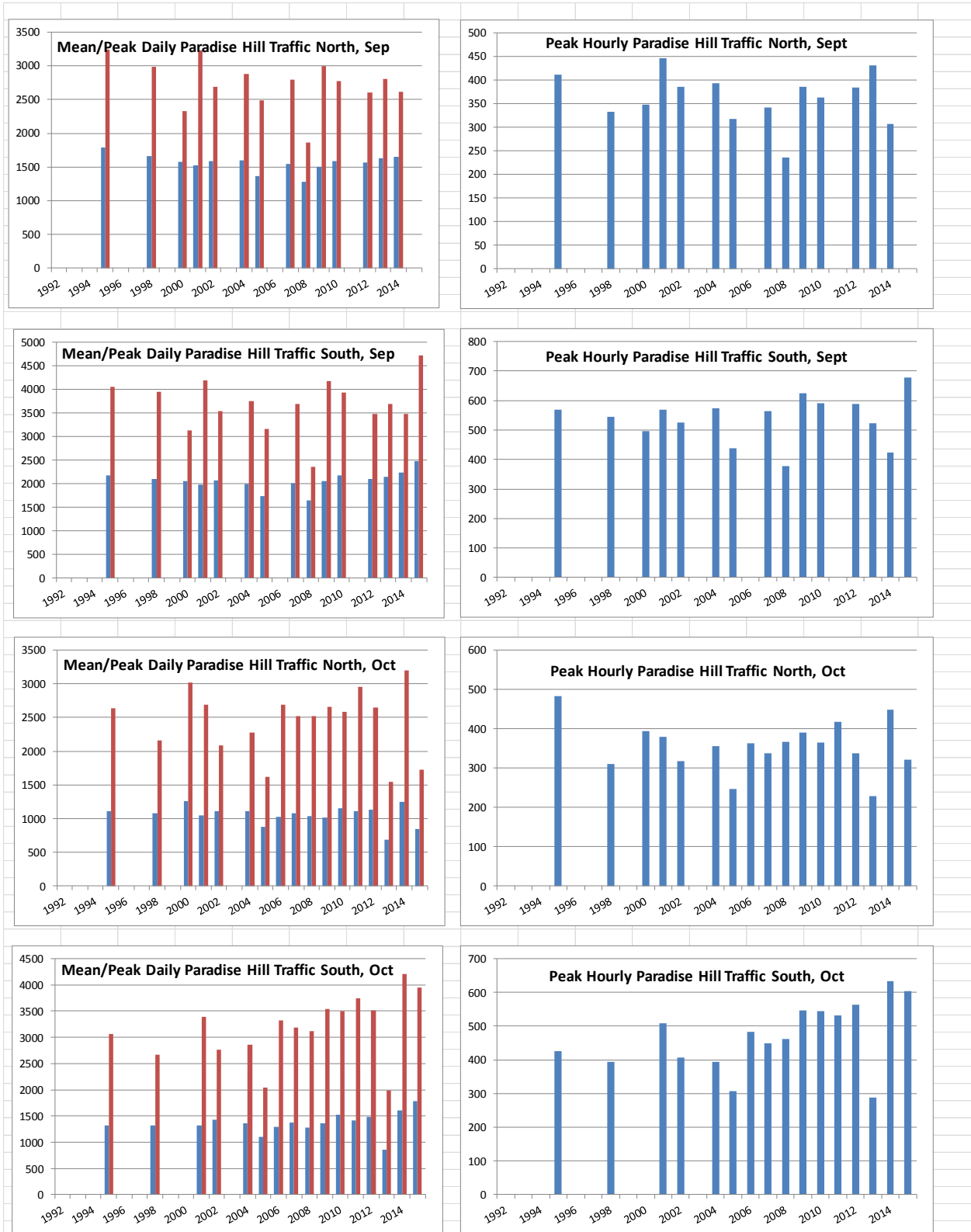
Peak Daily Traffic Counts in August are about 3,000 vehicles per day northbound and 4,200 vehicles per day southbound. Peak hourly traffic counts in August are about 375 vehicles northbound and 650 southbound per hour.



Paradise Hill Northbound/Southbound September and October (next page). Tables on the left are mean and peak daily use. Tables on the right are peak hourly use. Tables are organized by month first, then northbound, then southbound.

Based on Mean Daily Traffic Counts, there is a slight increasing trend for the past six years at the Paradise Hill traffic counter southbound in September and October (if one ignores the shutdown). In September, northbound traffic averages about 1,500 vehicles per day and southbound traffic about 2,000 vehicles per day. In October northbound traffic averages about 1,100 vehicles per day and southbound traffic about 1,400 vehicles per day. Peak daily and hourly traffic counts in September and October represent the Holidays.

Peak Daily Traffic Counts in September are about 2,700 vehicles per day northbound and 3,500 vehicles per day southbound. Peak Daily Traffic Counts in October are about 2,700 vehicles per day northbound and 3,700 vehicles per day southbound. Peak hourly traffic counts in September are about 375 vehicles northbound and 550 southbound per hour. Peak hourly traffic counts in October are about 375 vehicles northbound and 500 southbound per hour.



Here are the Excel tables on which the graphs above are based, pasted as pictures.

Sand Beach

July	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean Daily	2013	2160	2198	2229	2045			2009	1943	1979	2030	1927	1686	1679	1698	1648	1683	1620	1954	2010	1954	1998	2042	2184	1940	2024	1620	2229
Peak Daily	2774	3411	3221	3269	2837			2726	3041	2294	2859	2562	2353	2762	2643	2369	2248	2836	2785	2659	2519	3193	2715	2790			2248	3411
Peak Hourly	409	489	421	441	403			377	428	329	366	353	344	359	363	328	344	387	383	398	341	428	372	402			328	489
n (days)	31	31	31	31	23			31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31			23	31
Aug	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean		2581	2486	2674			2263	2230	2098	2238	2262	2096	1875	1845		1928	1820	2087	2257	2067	2077	2216	2300	2384	2189	2217	1820	2674
Peak Daily		3248	3193	4173			2954	3040	3095	2869	2800	3010	2677	2385		2818	2779	2705	3040	3289	2873	2920	2897	3180			2385	4173
Peak Hourly		458	440	519			398	402	372	360	413	376	396	332		390	373	507	432	467	398	398	375	398			332	519
n		31	31	31			31	31	31	31	31	31	31	31		31	31	31	31	31	31		31	31			31	31
Sept	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean		1564	1556	1642			1416	1591	1399	1374	1454	1353	1295	1168	1212	1344	1159	1416	1553	1425	1464	1468	1552	1745	1436	1535	1159	1745
Peak Daily		3150	2846	2926			2772	2715	2145	2671	2367	1889	2298	1957	1938	2407	1653	2666	2677	2434	2313	2685	2394	3343			1653	3343
Peak Hourly		441	367	414			358	363	311	330	314	232	329	275	279	329	273	373	370	330	330	329	295	381			232	441
n		28	27	30			30	30	30	30	30	30	30	30	29.9	30	30	30	30	30	30	30	30	30			27	30
Oct	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr*	Min Daily	Max Daily
Mean		1582		937			908	962	937	927	988	943	888	754	840	913	869	931	1038	929	997	957	1116	1234	963	1063	557	1582
Peak Daily		2502		2205			1739	2099	2027	2163	1882	2039	1866	1291	2047	2041	1971	2243	2178	2360	2019	1307	2598	2505			1291	2598
Peak Hourly		368		293			256	317	310	329	270	276	267	196	298	293	302	329	315	308	184	394	356				184	394
n		11		31			31	31	31	31	31	31	31	31	27.5	31	31	31	31	31	31	15	31	31		* Not shutdown 2013	11	31
		4000																	1038	929	997	1116	1234	1062.8				

Schoodic

July	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean Daily										720		482	438	467	457	453	429		428	533	467	479		459	546	473	428	920
Peak Daily										977		772	695	736	649	647	569		692	677	573	694		625		569	1064	
Peak Hourly										112		111	90	95	95	80	112		90	84	87	177		91		569	804	
n (days)										31		31	31	31	25.6	31	23		15.9	19.6	26.4	31		31		15	31	
Aug	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean								900	858	791		516	505	488	488	571	495	636	524	520	508	528	482	531	584	516	482	900
Peak Daily								1117	1355	1305		759	976	812	905	1006	854	1157	928	910	652	719	784	898			652	1355
Peak Hourly								146	131	147		106	136	116	136	127	117	152	127	134	100	125	124	138			100	152
n								30.3	31	31		31	31	31	25.2	30.8	27.6	24.7	29.4	30.5	31	31	13.8	31			13.8	31
Sept	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean								666	527			395	347	311	331	375	298	393	457	357	361	329	257	423	388	364	257	666
Peak Daily								834	766			824	663	522	542	619	528	764	1122	625	553	520	357	779			357	1122
Peak Hourly								99	113			146	103	71	83	113	87	190	151	82	70	73	62	112			62	190
n								30	30	30		30	30	30	30	30	29.8	30	13.4	30	30	30	24.5	30			13.4	30
Oct	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means 6yr	Min Daily	Max Daily
Mean									528	404		242	228	195	268		213	220	203	232	244	151	231	293	310	226	151	683
Peak Daily									740	794		514	373	279	825		391	410	382	475	356	229	417	549			229	825
Peak Hourly									77	113		92	61	44	114		57	59	54	84	52	34	62	72			34	126
n									31	31		31	31	31	30.7		31	31	22.3	31	28.9	15	29	31			11	31

Paradise Hill

July Southbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean Daily	2667	4774		2835					2785	2854	2925	2630	2495	2510		2348	2362	2257	2766	2756	2782	2853	2842	3098	2808	2850	2257	4774
Peak Daily	3551	7898		4142					4296	3401	4155	3483	3931	4102		3091	3393	3001	4205	3573	3930	4384	3905	4145			3001	7898
Peak Hourly	564	797		609					619	485	620	545	519	576		456	500	469	573	577	562	650	650	667			456	797
n (days)	19	15		31					31	31	31	22.2	31	31		31	31	15.7	31	31	31	31	30.5	31			15	31
Aug Northbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean				2579			2422		2200	2299	2382		2055	2046		2077	2008	1944	2258	2020	2091	2637	2315	1613	2184	2156	1613	2637
Peak Daily				3329			3005		3223	2858	3029		2794	2566		3156	3164	2458	2968	3593	2697	3483	3005	2350			2350	3593
Peak Hourly				412			425		365	398	369		349	336		351	463	367	370	398	327	450	406	359			327	463
n				31			31		31	31	31		31	31		31	31	20.5	30.9	31	31	31	30.6	13			13	31
Aug Southbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean				3335			3228		3015	3150	3263		2744	2748		2794	2674	2858	3294	2929	3003	3267	3301	3395	3062	3198	2674	3395
Peak Daily				4328			4515		4397	4099	4071		3780	3519		4363	4233	3543	4472	5091	3995	4387	4502	4726			3519	5091
Peak Hourly				625			645		675	566	661		581	557		678	670	710	702	792	601	626	620	675			557	792
n				31			31		31	31	31		31	31		31	31	20.5	30.9	31	31	31	30.6	31			20.5	31
Sept Northbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean				1791			1660		1576	1528	1590		1598	1369		1544	1285	1506	1592		1567	1630	1654		1564	1611	1285	1791
Peak Daily				3238			2982		2327	3225	2692		2881	2491		2798	1864	3000	2772		2605	2803	2619				1864	3238
Peak Hourly				411			333		348	447	385		394	317		342	236	385	363		384	431	307				236	447
n				30			30		30	30	30		30	30		30	30	30	30		30	30	29.6				29.6	30
Sept Southbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean				2176			2096		2059	1987	2066		2000	1744		2009	1644	2053	2176		2098	2152	2242	2480	2065	2230	1644	2480
Peak Daily				4059			3952		3130	4196	3534		3755	3166		3689	2365	4171	3931		3479	3695	3472	4718			2365	4718
Peak Hourly				568			545		497	568	524		574	437		564	378	625	590		588	523	424	678			378	678
n				30			30		30	30	30		30	30		30	30	30	30		30	30	29.6	30			29.6	30
Oct Northbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean				1114			1078		1257	1050	1115		1111	874	1029	1077	1041	1020	1158	1115	1136	690	1251	850	1057	1033	690	1257
Peak Daily				2639			2158		3022	2694	2086		2272	1617	2689	2515	2525	2659	2588	2954	2644	1546	3200	1722			1546	3200
Peak Hourly				483			310		394	379	318		356	246	363	337	367	390	364	418	337	229	448	321			229	483
n				27			31		31	31	31		31	31	31	31	31	31	31	31	31	15	31	13			13	31
Oct Southbound	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mean of Means	Mean of Means Gyr	Min Daily	Max Daily
Mean				1321			1315			1318	1423		1357	1102	1291	1372	1281	1361	1527	1414	1479	858	1612	1789	1364	1447	858	1789
Peak Daily				3065			2673			3395	2757		2857	2038	3326	3182	3112	3537	3502	3750	3517	1983	4210	3955			1983	4210
Peak Hourly				426			394			508	407		394	306	482	450	461	546	545	531	564	288	633	604			288	633
n				27			31			31	31		31	31	31	31	31	31	31	31	31	15	31	31			15	31