

# ALLIANT ENGINEERING, INC.

733 S Marquette Ave #700, Minneapolis, MN 55402

US 169 & CSAH 12 (Dayton Rd)-Miller Rd  
 City: Champlin  
 data by: Spack Solutions  
 TURN MOVEMENT COUNT

File Name : US 169 & CSAH 12 (Dayton Rd)-Miller Rd\_2021  
 Site Code : 1935920  
 Start Date : 11/10/2021  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	US 169 Southbound					Miller Rd Westbound					US 169 Northbound					CSAH 12 (Dayton Rd) Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:00 AM	5	353	40	0	398	3	0	9	0	12	13	91	4	0	108	41	6	31	0	78	596
06:15 AM	4	377	56	0	437	5	2	10	0	17	7	160	3	0	170	59	2	35	0	96	720
06:30 AM	4	408	70	0	482	2	1	5	0	8	18	227	4	0	249	84	1	54	0	139	878
06:45 AM	3	442	92	0	537	5	2	8	0	15	19	234	6	0	259	86	4	56	1	147	958
<b>Total</b>	<b>16</b>	<b>1580</b>	<b>258</b>	<b>0</b>	<b>1854</b>	<b>15</b>	<b>5</b>	<b>32</b>	<b>0</b>	<b>52</b>	<b>57</b>	<b>712</b>	<b>17</b>	<b>0</b>	<b>786</b>	<b>270</b>	<b>13</b>	<b>176</b>	<b>1</b>	<b>460</b>	<b>3152</b>
07:00 AM	4	440	77	0	521	1	4	8	0	13	14	225	1	1	241	85	4	71	0	160	935
07:15 AM	5	460	84	0	549	2	4	3	0	9	13	273	3	0	289	121	5	79	0	205	1052
07:30 AM	6	558	87	0	651	6	2	7	0	15	25	289	3	0	317	102	5	51	0	158	1141
07:45 AM	5	445	87	0	537	7	7	5	1	20	22	306	1	1	330	103	4	74	0	181	1068
<b>Total</b>	<b>20</b>	<b>1903</b>	<b>335</b>	<b>0</b>	<b>2258</b>	<b>16</b>	<b>17</b>	<b>23</b>	<b>1</b>	<b>57</b>	<b>74</b>	<b>1093</b>	<b>8</b>	<b>2</b>	<b>1177</b>	<b>411</b>	<b>18</b>	<b>275</b>	<b>0</b>	<b>704</b>	<b>4196</b>
08:00 AM	2	377	78	0	457	3	1	1	0	5	23	210	0	0	233	98	2	62	0	162	857
08:15 AM	2	359	48	0	409	3	3	10	0	16	19	215	1	0	235	67	3	33	0	103	763
08:30 AM	4	316	62	0	382	1	1	4	0	6	30	205	4	0	239	64	2	35	0	101	728
08:45 AM	2	315	65	0	382	7	2	8	0	17	20	219	3	0	242	64	3	45	0	112	753
<b>Total</b>	<b>10</b>	<b>1367</b>	<b>253</b>	<b>0</b>	<b>1630</b>	<b>14</b>	<b>7</b>	<b>23</b>	<b>0</b>	<b>44</b>	<b>92</b>	<b>849</b>	<b>8</b>	<b>0</b>	<b>949</b>	<b>293</b>	<b>10</b>	<b>175</b>	<b>0</b>	<b>478</b>	<b>3101</b>
09:00 AM	4	302	59	0	365	4	4	6	0	14	23	195	1	0	219	72	5	37	1	115	713
09:15 AM	4	327	52	0	383	7	4	6	0	17	17	220	4	0	241	66	3	41	1	111	752
09:30 AM	4	292	58	0	354	2	5	9	0	16	19	248	1	0	268	63	6	34	0	103	741
09:45 AM	4	304	41	0	349	4	1	7	0	12	12	260	2	0	274	61	4	29	1	95	730
<b>Total</b>	<b>16</b>	<b>1225</b>	<b>210</b>	<b>0</b>	<b>1451</b>	<b>17</b>	<b>14</b>	<b>28</b>	<b>0</b>	<b>59</b>	<b>71</b>	<b>923</b>	<b>8</b>	<b>0</b>	<b>1002</b>	<b>262</b>	<b>18</b>	<b>141</b>	<b>3</b>	<b>424</b>	<b>2936</b>
10:00 AM	3	253	55	0	311	6	5	9	0	20	19	178	2	0	199	64	2	35	0	101	631
10:15 AM	3	287	52	0	342	7	4	4	0	15	25	252	2	0	279	61	3	21	0	85	721
10:30 AM	7	248	51	0	306	5	4	7	0	16	28	211	4	1	244	65	6	15	0	86	652
10:45 AM	4	262	61	1	328	5	0	4	0	9	21	229	2	0	252	51	8	28	0	87	676
<b>Total</b>	<b>17</b>	<b>1050</b>	<b>219</b>	<b>1</b>	<b>1287</b>	<b>23</b>	<b>13</b>	<b>24</b>	<b>0</b>	<b>60</b>	<b>93</b>	<b>870</b>	<b>10</b>	<b>1</b>	<b>974</b>	<b>241</b>	<b>19</b>	<b>99</b>	<b>0</b>	<b>359</b>	<b>2680</b>
11:00 AM	9	251	53	0	313	6	6	8	0	20	27	236	4	0	267	84	4	46	0	134	734
11:15 AM	4	285	62	0	351	3	6	9	0	18	20	261	4	0	285	41	4	25	0	70	724
11:30 AM	9	251	66	0	326	7	4	8	0	19	27	276	1	0	304	66	3	27	0	96	745
11:45 AM	3	287	71	0	361	3	6	10	0	19	26	287	7	0	320	55	7	31	0	93	793
<b>Total</b>	<b>25</b>	<b>1074</b>	<b>252</b>	<b>0</b>	<b>1351</b>	<b>19</b>	<b>22</b>	<b>35</b>	<b>0</b>	<b>76</b>	<b>100</b>	<b>1060</b>	<b>16</b>	<b>0</b>	<b>1176</b>	<b>246</b>	<b>18</b>	<b>129</b>	<b>0</b>	<b>393</b>	<b>2996</b>
12:00 PM	5	265	86	0	356	9	6	8	0	23	21	232	2	2	257	63	8	34	0	105	741
12:15 PM	8	250	68	0	326	4	10	10	0	24	22	258	1	2	283	65	9	29	0	103	736
12:30 PM	6	279	69	0	354	4	7	7	0	18	36	276	1	0	313	79	6	27	0	112	797
12:45 PM	5	271	55	0	331	6	1	7	0	14	34	285	3	0	322	68	4	23	0	95	762
<b>Total</b>	<b>24</b>	<b>1065</b>	<b>278</b>	<b>0</b>	<b>1367</b>	<b>23</b>	<b>24</b>	<b>32</b>	<b>0</b>	<b>79</b>	<b>113</b>	<b>1051</b>	<b>7</b>	<b>4</b>	<b>1175</b>	<b>275</b>	<b>27</b>	<b>113</b>	<b>0</b>	<b>415</b>	<b>3036</b>
01:00 PM	4	279	57	0	340	7	6	11	1	25	24	286	2	0	312	58	6	26	0	90	767
01:15 PM	4	219	64	0	287	8	7	10	0	25	21	314	4	0	339	67	3	30	0	100	751
01:30 PM	4	259	50	0	313	8	4	6	0	18	26	339	5	0	370	50	3	38	0	91	792
01:45 PM	7	234	76	0	317	4	4	8	1	17	22	381	1	0	404	72	7	22	0	101	839
<b>Total</b>	<b>19</b>	<b>991</b>	<b>247</b>	<b>0</b>	<b>1257</b>	<b>27</b>	<b>21</b>	<b>35</b>	<b>2</b>	<b>85</b>	<b>93</b>	<b>1320</b>	<b>12</b>	<b>0</b>	<b>1425</b>	<b>247</b>	<b>19</b>	<b>116</b>	<b>0</b>	<b>382</b>	<b>3149</b>
02:00 PM	7	272	73	0	352	7	5	6	0	18	23	336	4	0	363	65	5	26	0	96	829
02:15 PM	6	312	94	0	412	8	2	11	0	21	38	416	4	0	458	84	5	32	0	121	1012
02:30 PM	4	315	101	0	420	10	3	14	0	27	28	403	2	0	433	57	4	21	0	82	962
02:45 PM	7	263	89	1	360	3	6	21	0	30	42	395	8	0	445	107	7	32	0	146	981
<b>Total</b>	<b>24</b>	<b>1162</b>	<b>357</b>	<b>1</b>	<b>1544</b>	<b>28</b>	<b>16</b>	<b>52</b>	<b>0</b>	<b>96</b>	<b>131</b>	<b>1550</b>	<b>18</b>	<b>0</b>	<b>1699</b>	<b>313</b>	<b>21</b>	<b>111</b>	<b>0</b>	<b>445</b>	<b>3784</b>
03:00 PM	5	351	123	0	479	2	1	19	1	23	44	479	1	0	524	70	3	31	0	104	1130

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 TURN MOVEMENT COUNT

File Name : US 169 & CSAH 12 (Dayton Rd)-Miller Rd\_2021  
 Site Code : 1935920  
 Start Date : 11/10/2021  
 Page No : 2

Groups Printed- Cars - Trucks

Start Time	US 169 Southbound					Miller Rd Westbound					US 169 Northbound					CSAH 12 (Dayton Rd) Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
03:15 PM	1	297	97	0	395	4	6	9	0	19	37	457	7	0	501	102	3	29	0	134	1049
03:30 PM	6	340	144	0	490	4	5	15	0	24	47	441	3	0	491	101	3	33	0	137	1142
03:45 PM	11	324	141	0	476	5	9	12	1	27	30	429	2	0	461	134	6	35	0	175	1139
Total	23	1312	505	0	1840	15	21	55	2	93	158	1806	13	0	1977	407	15	128	0	550	4460
04:00 PM	3	350	116	1	470	6	6	10	1	23	23	401	0	0	424	104	4	45	0	153	1070
04:15 PM	6	315	155	0	476	4	6	18	0	28	29	447	5	0	481	135	16	32	0	183	1168
04:30 PM	1	357	120	0	478	5	9	22	1	37	27	449	1	0	477	129	14	34	0	177	1169
04:45 PM	9	326	125	0	460	6	3	19	1	29	16	391	1	0	408	159	14	22	0	195	1092
Total	19	1348	516	1	1884	21	24	69	3	117	95	1688	7	0	1790	527	48	133	0	708	4499
05:00 PM	7	298	110	0	415	9	5	14	0	28	11	433	1	0	445	129	4	26	0	159	1047
05:15 PM	2	306	69	0	377	3	1	17	0	21	18	432	0	0	450	151	20	29	0	200	1048
05:30 PM	4	257	98	0	359	8	3	18	0	29	19	431	1	0	451	139	18	39	0	196	1035
05:45 PM	3	217	64	0	284	2	4	16	0	22	17	436	1	0	454	115	7	28	0	150	910
Total	16	1078	341	0	1435	22	13	65	0	100	65	1732	3	0	1800	534	49	122	0	705	4040
06:00 PM	6	181	84	0	271	7	2	15	0	24	17	489	2	0	508	133	0	26	0	159	962
06:15 PM	3	213	58	0	274	5	3	12	0	20	33	437	4	0	474	114	5	24	0	143	911
06:30 PM	2	210	70	0	282	5	2	10	0	17	30	309	4	0	343	63	4	24	0	91	733
06:45 PM	1	150	41	0	192	3	4	5	0	12	29	255	2	0	286	51	3	24	0	78	568
Total	12	754	253	0	1019	20	11	42	0	73	109	1490	12	0	1611	361	12	98	0	471	3174
Grand Total	241	15909	4024	3	20177	260	208	515	8	991	1251	16144	139	7	17541	4387	287	1816	4	6494	45203
Apprch %	1.2	78.8	19.9	0		26.2	21	52	0.8		7.1	92	0.8	0		67.6	4.4	28	0.1		
Total %	0.5	35.2	8.9	0	44.6	0.6	0.5	1.1	0	2.2	2.8	35.7	0.3	0	38.8	9.7	0.6	4	0	14.4	
Cars	236	15386	3875	1	19498	254	202	509	3	968	1179	15655	136	6	16976	4245	286	1740	3	6274	43716
% Cars	97.9	96.7	96.3	33.3	96.6	97.7	97.1	98.8	37.5	97.7	94.2	97	97.8	85.7	96.8	96.8	99.7	95.8	75	96.6	96.7
Trucks	5	523	149	2	679	6	6	6	5	23	72	489	3	1	565	142	1	76	1	220	1487
% Trucks	2.1	3.3	3.7	66.7	3.4	2.3	2.9	1.2	62.5	2.3	5.8	3	2.2	14.3	3.2	3.2	0.3	4.2	25	3.4	3.3

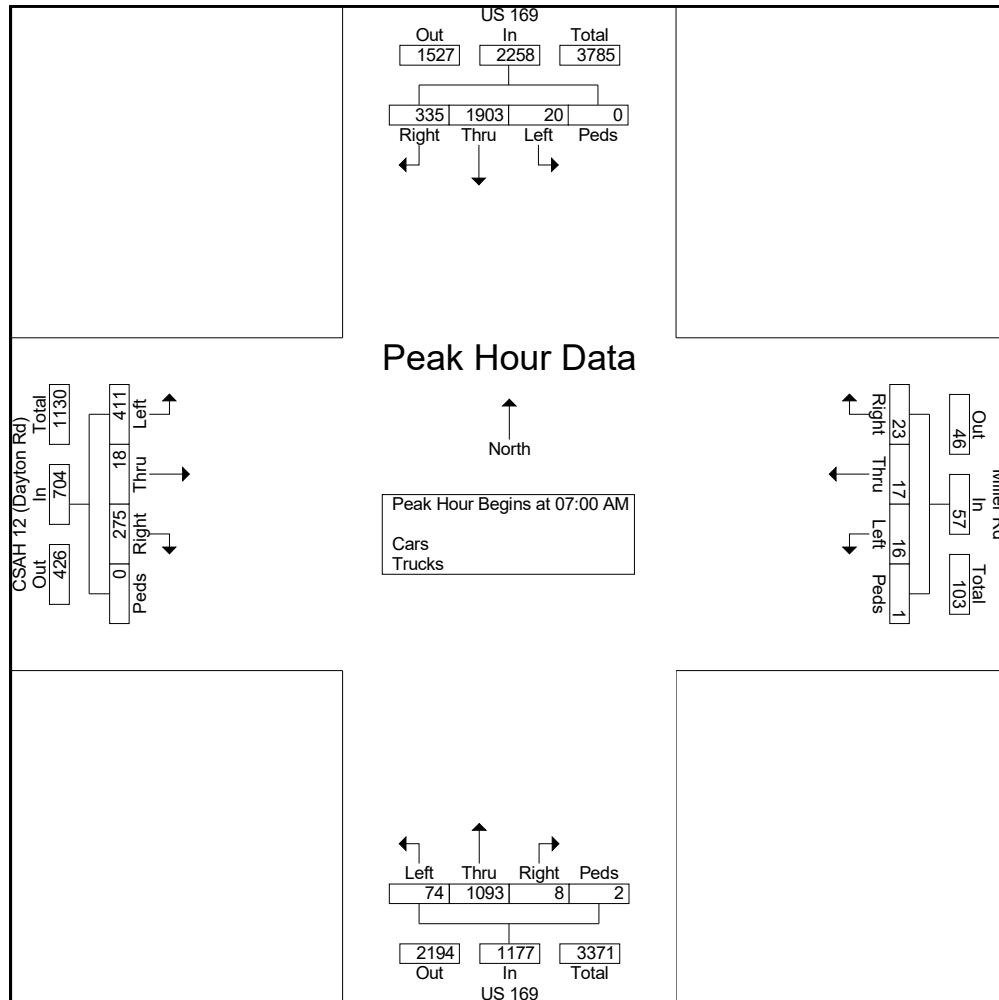
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733 S Marquette Ave #700, Minneapolis, MN 55402

US 169 & CSAH 12 (Dayton Rd)-Miller Rd  
 City: Champlin  
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 TURN MOVEMENT COUNT

File Name : US 169 & CSAH 12 (Dayton Rd)-Miller Rd\_2021  
 Site Code : 1935920  
 Start Date : 11/10/2021  
 Page No : 3

Start Time	US 169 Southbound					Miller Rd Westbound					US 169 Northbound					CSAH 12 (Dayton Rd) Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	4	440	77	0	521	1	4	8	0	13	14	225	1	1	241	85	4	71	0	160	935
07:15 AM	5	460	84	0	549	2	4	3	0	9	13	273	3	0	289	121	5	79	0	205	1052
07:30 AM	6	558	87	0	651	6	2	7	0	15	25	289	3	0	317	102	5	51	0	158	1141
07:45 AM	5	445	87	0	537	7	7	5	1	20	22	306	1	1	330	103	4	74	0	181	1068
Total Volume	20	1903	335	0	2258	16	17	23	1	57	74	1093	8	2	1177	411	18	275	0	704	4196
% App. Total	0.9	84.3	14.8	0		28.1	29.8	40.4	1.8		6.3	92.9	0.7	0.2		58.4	2.6	39.1	0		
PHF	.833	.853	.963	.000	.867	.571	.607	.719	.250	.713	.740	.893	.667	.500	.892	.849	.900	.870	.000	.859	.919



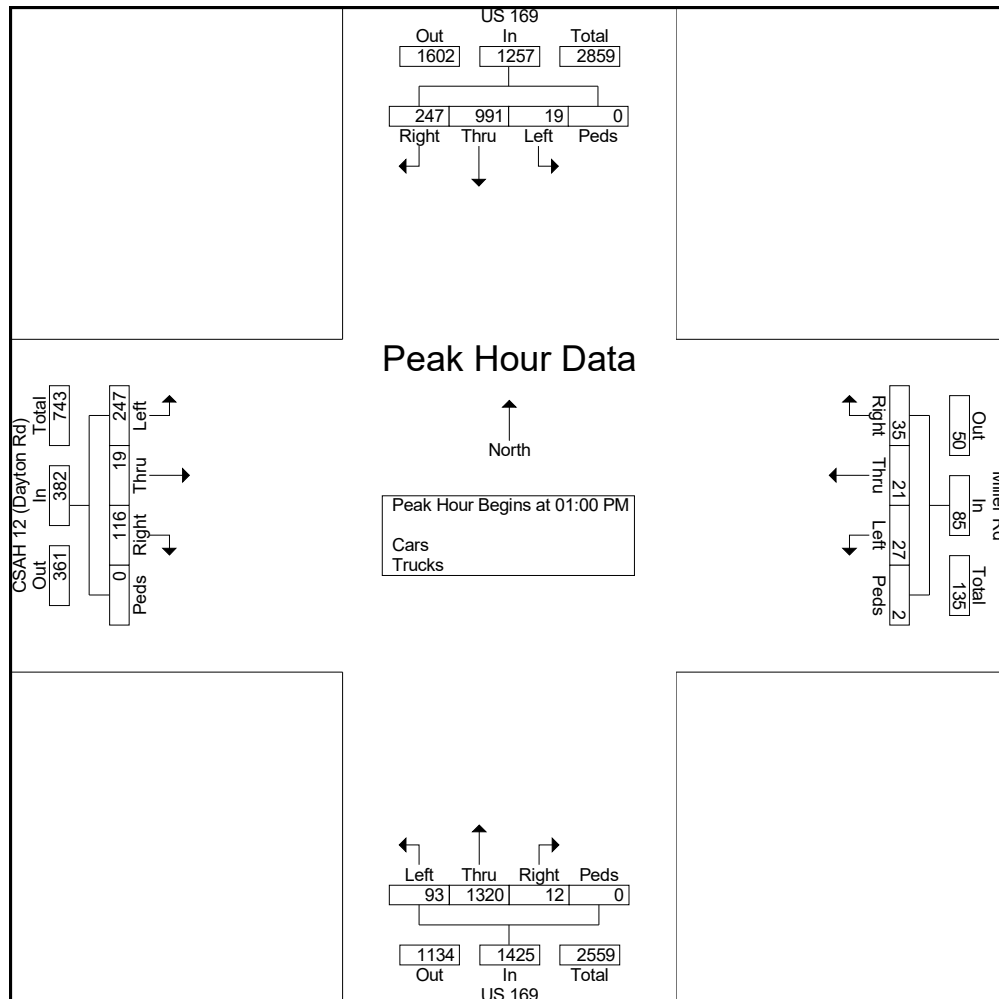
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US 169 & CSAH 12 (Dayton Rd)-Miller Rd  
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 TURN MOVEMENT COUNT

File Name : US 169 & CSAH 12 (Dayton Rd)-Miller Rd\_2021  
 Site Code : 1935920  
 Start Date : 11/10/2021  
 Page No : 4

Start Time	US 169 Southbound					Miller Rd Westbound					US 169 Northbound					CSAH 12 (Dayton Rd) Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	4	279	57	0	340	7	6	11	1	25	24	286	2	0	312	58	6	26	0	90	767
01:15 PM	4	219	64	0	287	8	7	10	0	25	21	314	4	0	339	67	3	30	0	100	751
01:30 PM	4	259	50	0	313	8	4	6	0	18	26	339	5	0	370	50	3	38	0	91	792
01:45 PM	7	234	76	0	317	4	4	8	1	17	22	381	1	0	404	72	7	22	0	101	839
Total Volume	19	991	247	0	1257	27	21	35	2	85	93	1320	12	0	1425	247	19	116	0	382	3149
% App. Total	1.5	78.8	19.6	0		31.8	24.7	41.2	2.4		6.5	92.6	0.8	0		64.7	5	30.4	0		
PHF	.679	.888	.813	.000	.924	.844	.750	.795	.500	.850	.894	.866	.600	.000	.882	.858	.679	.763	.000	.946	.938



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File Name : US 169 & CSAH 12 (Dayton Rd)-Miller Rd\_2021  
 Site Code : 1935920  
 Start Date : 11/10/2021  
 Page No : 5

Start Time	US 169 Southbound					Miller Rd Westbound					US 169 Northbound					CSAH 12 (Dayton Rd) Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
03:45 PM	11	324	141	0	476	5	9	12	1	27	30	429	2	0	461	134	6	35	0	175	1139
04:00 PM	3	350	116	1	470	6	6	10	1	23	23	401	0	0	424	104	4	45	0	153	1070
04:15 PM	6	315	155	0	476	4	6	18	0	28	29	447	5	0	481	135	16	32	0	183	1168
04:30 PM	1	357	120	0	478	5	9	22	1	37	27	449	1	0	477	129	14	34	0	177	1169
Total Volume	21	1346	532	1	1900	20	30	62	3	115	109	1726	8	0	1843	502	40	146	0	688	4546
% App. Total	1.1	70.8	28	0.1		17.4	26.1	53.9	2.6		5.9	93.7	0.4	0		73	5.8	21.2	0		
PHF	.477	.943	.858	.250	.994	.833	.833	.705	.750	.777	.908	.961	.400	.000	.958	.930	.625	.811	.000	.940	.972

