

# ALLIANT ENGINEERING, INC.

733 S Marquette Ave #700, Minneapolis, MN 55402

US 169 & 120th Ave  
 City: Champlin  
 data by: Spack Solutions  
 TURN MOVEMENT COUNT

File Name : US 169 & 120th Ave\_2021  
 Site Code : 1735941  
 Start Date : 11/3/2021  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	US 169 Southbound					120th Ave Westbound					US 169 Northbound					120th Ave 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	1	341	15	0	357	0	4	4	0	8	4	110	4	0	118	8	2	24	0	34	517
06:15 AM	3	422	26	0	451	7	0	2	0	9	11	131	5	0	147	7	2	21	0	30	637
06:30 AM	1	461	21	0	483	13	3	5	0	21	15	198	9	0	222	9	4	38	0	51	777
06:45 AM	15	450	14	0	479	16	4	3	0	23	18	151	9	0	178	11	5	21	0	37	717
<b>Total</b>	<b>20</b>	<b>1674</b>	<b>76</b>	<b>0</b>	<b>1770</b>	<b>36</b>	<b>11</b>	<b>14</b>	<b>0</b>	<b>61</b>	<b>48</b>	<b>590</b>	<b>27</b>	<b>0</b>	<b>665</b>	<b>35</b>	<b>13</b>	<b>104</b>	<b>0</b>	<b>152</b>	<b>2648</b>
07:00 AM	6	513	16	0	535	11	3	3	0	17	13	158	9	0	180	6	7	35	0	48	780
07:15 AM	8	555	16	0	579	7	1	9	0	17	10	217	7	0	234	8	2	30	0	40	870
07:30 AM	12	496	29	0	537	9	4	2	0	15	18	225	8	0	251	4	3	46	0	53	856
07:45 AM	13	486	21	0	520	7	10	9	0	26	21	256	14	0	291	7	11	38	0	56	893
<b>Total</b>	<b>39</b>	<b>2050</b>	<b>82</b>	<b>0</b>	<b>2171</b>	<b>34</b>	<b>18</b>	<b>23</b>	<b>0</b>	<b>75</b>	<b>62</b>	<b>856</b>	<b>38</b>	<b>0</b>	<b>956</b>	<b>25</b>	<b>23</b>	<b>149</b>	<b>0</b>	<b>197</b>	<b>3399</b>
08:00 AM	4	468	17	0	489	8	8	7	0	23	20	197	10	0	227	5	6	24	0	35	774
08:15 AM	6	423	20	0	449	12	5	4	0	21	14	198	6	0	218	9	4	24	0	37	725
08:30 AM	13	380	11	0	404	10	7	8	0	25	27	232	16	0	275	8	3	43	0	54	758
08:45 AM	14	351	21	2	388	24	6	7	0	37	22	181	21	0	224	1	6	28	0	35	684
<b>Total</b>	<b>37</b>	<b>1622</b>	<b>69</b>	<b>2</b>	<b>1730</b>	<b>54</b>	<b>26</b>	<b>26</b>	<b>0</b>	<b>106</b>	<b>83</b>	<b>808</b>	<b>53</b>	<b>0</b>	<b>944</b>	<b>23</b>	<b>19</b>	<b>119</b>	<b>0</b>	<b>161</b>	<b>2941</b>
09:00 AM	20	225	10	0	255	14	5	9	0	28	28	187	14	0	229	4	8	29	0	41	553
09:15 AM	14	299	32	0	345	21	14	17	0	52	25	163	20	0	208	5	7	24	0	36	641
09:30 AM	15	311	36	0	362	6	6	13	0	25	21	213	26	0	260	9	8	27	0	44	691
09:45 AM	22	277	21	0	320	17	10	13	0	40	21	218	20	0	259	25	11	23	0	59	678
<b>Total</b>	<b>71</b>	<b>1112</b>	<b>99</b>	<b>0</b>	<b>1282</b>	<b>58</b>	<b>35</b>	<b>52</b>	<b>0</b>	<b>145</b>	<b>95</b>	<b>781</b>	<b>80</b>	<b>0</b>	<b>956</b>	<b>43</b>	<b>34</b>	<b>103</b>	<b>0</b>	<b>180</b>	<b>2563</b>
10:00 AM	18	233	17	0	268	11	12	20	0	43	26	160	21	0	207	7	11	33	0	51	569
10:15 AM	19	276	10	0	305	12	11	14	0	37	23	182	26	0	231	7	12	29	0	48	621
10:30 AM	9	233	14	3	259	18	14	28	0	60	13	165	31	0	209	9	14	31	0	54	582
10:45 AM	24	245	17	1	287	21	13	23	0	57	29	214	21	0	264	6	16	24	0	46	654
<b>Total</b>	<b>70</b>	<b>987</b>	<b>58</b>	<b>4</b>	<b>1119</b>	<b>62</b>	<b>50</b>	<b>85</b>	<b>0</b>	<b>197</b>	<b>91</b>	<b>721</b>	<b>99</b>	<b>0</b>	<b>911</b>	<b>29</b>	<b>53</b>	<b>117</b>	<b>0</b>	<b>199</b>	<b>2426</b>
11:00 AM	25	242	18	0	285	10	10	15	0	35	16	207	21	0	244	5	13	35	0	53	617
11:15 AM	21	265	18	0	304	28	19	22	0	69	29	188	29	0	246	6	10	23	0	39	658
11:30 AM	19	278	12	0	309	22	14	39	0	75	20	220	33	0	273	7	15	20	0	42	699
11:45 AM	28	233	15	0	276	21	21	28	0	70	32	238	23	0	293	9	15	30	0	54	693
<b>Total</b>	<b>93</b>	<b>1018</b>	<b>63</b>	<b>0</b>	<b>1174</b>	<b>81</b>	<b>64</b>	<b>104</b>	<b>0</b>	<b>249</b>	<b>97</b>	<b>853</b>	<b>106</b>	<b>0</b>	<b>1056</b>	<b>27</b>	<b>53</b>	<b>108</b>	<b>0</b>	<b>188</b>	<b>2667</b>
12:00 PM	26	231	9	0	266	24	15	32	0	71	28	196	34	0	258	7	17	36	0	60	655
12:15 PM	26	258	23	0	307	21	17	32	0	70	22	204	28	0	254	12	15	21	0	48	679
12:30 PM	27	278	21	0	326	16	14	27	0	57	18	219	25	0	262	6	19	20	0	45	690
12:45 PM	23	249	19	0	291	16	14	26	0	56	23	244	36	0	303	8	16	25	0	49	699
<b>Total</b>	<b>102</b>	<b>1016</b>	<b>72</b>	<b>0</b>	<b>1190</b>	<b>77</b>	<b>60</b>	<b>117</b>	<b>0</b>	<b>254</b>	<b>91</b>	<b>863</b>	<b>123</b>	<b>0</b>	<b>1077</b>	<b>33</b>	<b>67</b>	<b>102</b>	<b>0</b>	<b>202</b>	<b>2723</b>
01:00 PM	33	205	29	0	267	24	12	28	0	64	31	251	29	0	311	12	13	30	0	55	697
01:15 PM	14	262	22	0	298	23	29	28	0	80	26	248	32	0	306	10	14	30	0	54	738
01:30 PM	22	235	19	0	276	26	17	26	0	69	25	236	41	0	302	13	19	30	0	62	709
01:45 PM	21	217	25	0	263	32	21	28	0	81	23	274	36	0	333	18	12	20	0	50	727
<b>Total</b>	<b>90</b>	<b>919</b>	<b>95</b>	<b>0</b>	<b>1104</b>	<b>105</b>	<b>79</b>	<b>110</b>	<b>0</b>	<b>294</b>	<b>105</b>	<b>1009</b>	<b>138</b>	<b>0</b>	<b>1252</b>	<b>53</b>	<b>58</b>	<b>110</b>	<b>0</b>	<b>221</b>	<b>2871</b>
02:00 PM	25	265	16	1	307	14	15	23	0	52	26	317	28	0	371	8	10	33	0	51	781
02:15 PM	17	260	27	0	304	17	19	18	0	54	22	285	24	0	331	9	13	20	0	42	731
02:30 PM	19	254	23	0	296	16	14	34	0	64	41	350	25	0	416	8	11	44	0	63	839
02:45 PM	28	273	14	0	315	28	11	15	0	54	32	355	38	0	425	11	10	22	0	43	837
<b>Total</b>	<b>89</b>	<b>1052</b>	<b>80</b>	<b>1</b>	<b>1222</b>	<b>75</b>	<b>59</b>	<b>90</b>	<b>0</b>	<b>224</b>	<b>121</b>	<b>1307</b>	<b>115</b>	<b>0</b>	<b>1543</b>	<b>36</b>	<b>44</b>	<b>119</b>	<b>0</b>	<b>199</b>	<b>3188</b>
03:00 PM	24	261	13	0	298	19	19	35	0	73	32	374	35	0	441	4	14	30	0	48	860

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US 169 & 120th Ave  
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 TURN MOVEMENT COUNT

File Name : US 169 & 120th Ave\_2021  
 Site Code : 1735941  
 Start Date : 11/3/2021  
 Page No : 2

Groups Printed- Cars - Trucks

Start Time	US 169 Southbound					120th Ave Westbound					US 169 Northbound					120th Ave 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	19	301	12	3	335	22	17	37	0	76	44	403	24	0	471	9	9	24	0	42	924
03:30 PM	34	294	17	0	345	18	26	27	0	71	30	412	28	0	470	12	15	29	0	56	942
03:45 PM	22	295	14	3	334	13	25	23	0	61	31	409	33	0	473	7	16	37	0	60	928
Total	99	1151	56	6	1312	72	87	122	0	281	137	1598	120	0	1855	32	54	120	0	206	3654
04:00 PM	37	231	13	0	281	11	23	35	0	69	29	412	39	0	480	5	18	35	0	58	888
04:15 PM	23	297	16	0	336	22	21	39	0	82	41	440	34	0	515	12	22	26	0	60	993
04:30 PM	19	301	14	0	334	19	25	48	0	92	34	387	33	0	454	9	22	28	0	59	939
04:45 PM	20	329	27	0	376	25	16	20	0	61	34	407	34	0	475	14	20	29	0	63	975
Total	99	1158	70	0	1327	77	85	142	0	304	138	1646	140	0	1924	40	82	118	0	240	3795
05:00 PM	20	292	24	0	336	30	17	33	0	80	48	363	38	0	449	11	14	34	0	59	924
05:15 PM	30	306	17	0	353	14	26	36	0	76	31	365	45	0	441	14	19	30	0	63	933
05:30 PM	30	275	20	1	326	25	25	23	0	73	46	372	26	0	444	12	16	45	0	73	916
05:45 PM	18	273	15	2	308	22	13	34	0	69	24	346	41	0	411	15	16	45	0	76	864
Total	98	1146	76	3	1323	91	81	126	0	298	149	1446	150	0	1745	52	65	154	0	271	3637
06:00 PM	19	271	20	0	310	38	17	27	0	82	40	325	39	0	404	12	24	49	0	85	881
06:15 PM	21	261	20	0	302	14	18	28	0	60	43	314	32	0	389	9	23	44	0	76	827
06:30 PM	20	230	14	1	265	27	27	26	0	80	50	340	39	0	429	4	8	25	0	37	811
06:45 PM	22	201	14	0	237	12	14	25	0	51	23	276	34	0	333	10	22	23	0	55	676
Total	82	963	68	1	1114	91	76	106	0	273	156	1255	144	0	1555	35	77	141	0	253	3195
Grand Total	989	15868	964	17	17838	913	731	1117	0	2761	1373	13733	1333	0	16439	463	642	1564	0	2669	39707
Apprch %	5.5	89	5.4	0.1		33.1	26.5	40.5	0		8.4	83.5	8.1	0		17.3	24.1	58.6	0		
Total %	2.5	40	2.4	0	44.9	2.3	1.8	2.8	0	7	3.5	34.6	3.4	0	41.4	1.2	1.6	3.9	0	6.7	
Cars	985	15258	911	8	17162	901	722	1113	0	2736	1350	13143	1313	0	15806	408	639	1504	0	2551	38255
% Cars	99.6	96.2	94.5	47.1	96.2	98.7	98.8	99.6	0	99.1	98.3	95.7	98.5	0	96.1	88.1	99.5	96.2	0	95.6	96.3
Trucks	4	610	53	9	676	12	9	4	0	25	23	590	20	0	633	55	3	60	0	118	1452
% Trucks	0.4	3.8	5.5	52.9	3.8	1.3	1.2	0.4	0	0.9	1.7	4.3	1.5	0	3.9	11.9	0.5	3.8	0	4.4	3.7

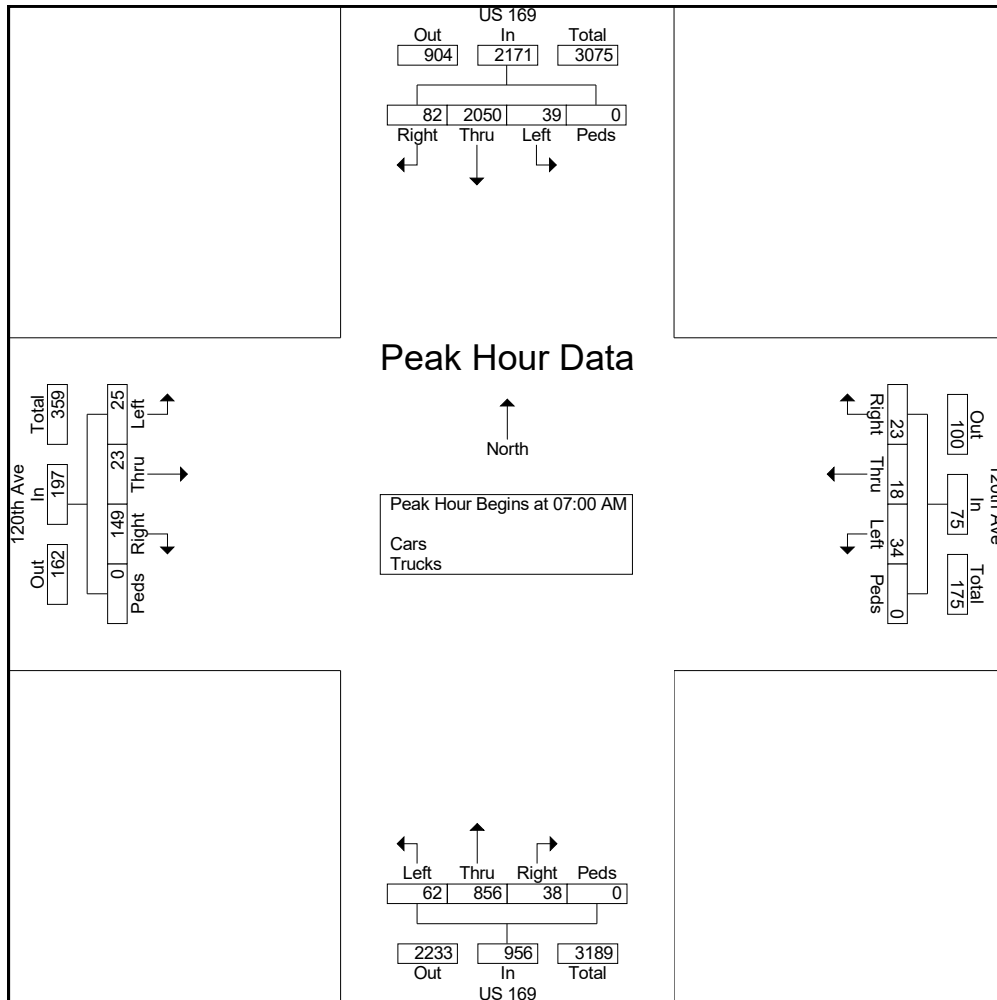
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733 S Marquette Ave #700, Minneapolis, MN 55402

US 169 & 120th Ave  
 City: Champlin  
 data by: Spack Solutions  
 TURN MOVEMENT COUNT

File Name : US 169 & 120th Ave\_2021  
 Site Code : 1735941  
 Start Date : 11/3/2021  
 Page No : 3

Start Time	US 169 Southbound					120th Ave Westbound					US 169 Northbound					120th Ave 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	6	513	16	0	535	11	3	3	0	17	13	158	9	0	180	6	7	35	0	48	780
07:15 AM	8	<b>555</b>	16	0	<b>579</b>	7	1	<b>9</b>	0	17	10	217	7	0	234	<b>8</b>	2	30	0	40	870
07:30 AM	12	496	<b>29</b>	0	537	9	4	2	0	15	18	225	8	0	251	4	3	<b>46</b>	0	53	856
07:45 AM	<b>13</b>	486	21	0	520	7	<b>10</b>	9	0	<b>26</b>	<b>21</b>	<b>256</b>	<b>14</b>	0	<b>291</b>	7	<b>11</b>	38	0	<b>56</b>	<b>893</b>
Total Volume	39	2050	82	0	2171	34	18	23	0	75	62	856	38	0	956	25	23	149	0	197	3399
% App. Total	1.8	94.4	3.8	0		45.3	24	30.7	0		6.5	89.5	4	0		12.7	11.7	75.6	0		
PHF	.750	.923	.707	.000	.937	.773	.450	.639	.000	.721	.738	.836	.679	.000	.821	.781	.523	.810	.000	.879	.952



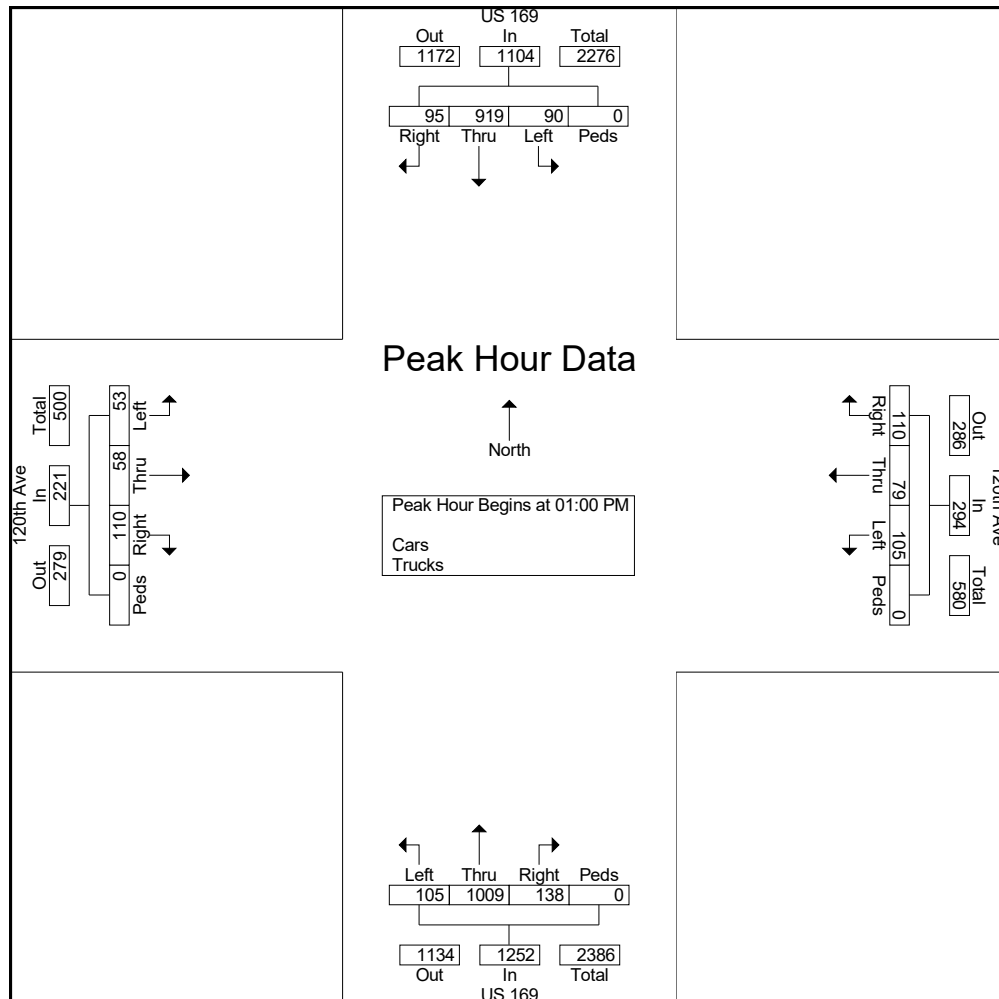
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US 169 & 120th Ave  
 City: Champlin  
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 TURN MOVEMENT COUNT

File Name : US 169 & 120th Ave\_2021  
 Site Code : 1735941  
 Start Date : 11/3/2021  
 Page No : 4

Start Time	US 169 Southbound					120th Ave Westbound					US 169 Northbound					120th Ave 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	33	205	29	0	267	24	12	28	0	64	31	251	29	0	311	12	13	30	0	55	697
01:15 PM	14	262	22	0	298	23	29	28	0	80	26	248	32	0	306	10	14	30	0	54	738
01:30 PM	22	235	19	0	276	26	17	26	0	69	25	236	41	0	302	13	19	30	0	62	709
01:45 PM	21	217	25	0	263	32	21	28	0	81	23	274	36	0	333	18	12	20	0	50	727
Total Volume	90	919	95	0	1104	105	79	110	0	294	105	1009	138	0	1252	53	58	110	0	221	2871
% App. Total	8.2	83.2	8.6	0		35.7	26.9	37.4	0		8.4	80.6	11	0		24	26.2	49.8	0		
PHF	.682	.877	.819	.000	.926	.820	.681	.982	.000	.907	.847	.921	.841	.000	.940	.736	.763	.917	.000	.891	.973



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 Start Date : 11/3/2021  
 Page No : 5

Start Time	US 169 Southbound					120th Ave Westbound					US 169 Northbound					120th Ave 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 04:15 PM																					
04:15 PM	23	297	16	0	336	22	21	39	0	82	41	440	34	0	515	12	22	26	0	60	993
04:30 PM	19	301	14	0	334	19	25	48	0	92	34	387	33	0	454	9	22	28	0	59	939
04:45 PM	20	329	27	0	376	25	16	20	0	61	34	407	34	0	475	14	20	29	0	63	975
05:00 PM	20	292	24	0	336	30	17	33	0	80	48	363	38	0	449	11	14	34	0	59	924
Total Volume	82	1219	81	0	1382	96	79	140	0	315	157	1597	139	0	1893	46	78	117	0	241	3831
% App. Total	5.9	88.2	5.9	0		30.5	25.1	44.4	0		8.3	84.4	7.3	0		19.1	32.4	48.5	0		
PHF	.891	.926	.750	.000	.919	.800	.790	.729	.000	.856	.818	.907	.914	.000	.919	.821	.886	.860	.000	.956	.965

