

*Alaska Department of Transportation
and Public Facilities*



*Southeast Region
2004 Traffic and Safety Report*

Prepared October, 2006

***Alaska Department of Transportation
and Public Facilities
Southeast Region***

2004 Traffic and Safety Report

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Introduction

The Traffic and Safety Section conducts numerous studies of traffic characteristics and investigates the operation and management of roadway facilities in order to provide for the safe, convenient and efficient movement of people and goods. These studies help to determine the techniques and approaches to be used to meet the transportation needs of the southeast Alaska communities.

Traffic and safety data was collected and analyzed for those roadways that provide a key community link and had significant amounts of vehicular volume. The State of Alaska maintains the majority of these roads and highways. Although this report is for 2004, data from other years is included where appropriate. Traffic and safety information is provided in four sections:

I. SAFETY

- A. Intersection Accident Rate Ranking
- B. Rural Highway Accident Rate Ranking

II. QUALITY OF OPERATION

- A. Quality of operation at signalized intersections
- B. Quality of operation at unsignalized intersections

III. VEHICLE CLASSIFICATION

IV. TRAFFIC VOLUME

- A. Historical Population Growth Rates
- B. Permanent Traffic Recorder Data
- C. Annual Average Daily Traffic Maps

I. SAFETY SECTION

A. Intersection Accident Rate Ranking

The intersection accident rate ranking was derived from the State of Alaska's computerized traffic accident database, the Highway Analysis System (HAS). This report covers accidents that occurred during the 5 year period January 1st, 2000 – December 31st, 2004. All accidents within 0.05 miles of the center of an intersection were counted as intersection accidents. Because there are over a thousand intersections in the Southeast Region, only intersections with ten or more accidents or one fatal accident in a five-year period were listed and analyzed.

When highway improvements are being considered on the basis of accident history, it is always a good idea to verify and supplement computer generated data, such as the tables contained in this section, with copies of the actual accident reports.

In addition, two types of accident rates were computed, weighted and unweighted. Weighted rates are calculated using accident severity and identify locations with more serious accidents. However, these locations are more likely to change from one year to the next because they can be heavily influenced by random severe accidents, especially on the many low volume roads typical of this region. Unweighted rates fluctuate less and, like the five-year rates, provide a better indication of accident patterns.

To compute weighted rates, accident weights are taken from the statewide Highway Safety Improvement Program. The following weights were assigned to each accident type:

Property damage only (PDO):	
	1
Minor (non-disabling) injury:	5
Major (disabling) injury:	10
Fatality:	20

Accident rates are computed by accidents (weighted or unweighted) per million vehicles entering an intersection. The formulas used to compute the intersection accident rates are as follows:

Unweighted rate: $\frac{(\text{Total accidents in five years})}{[(\text{ADT Leg 1} + \text{ADT Leg 2} \dots \text{ADT Leg 4}) \times \text{five years}]} / \text{MV}$

Weighted rate: $\frac{(\text{Weighted accident number for five years})}{[(\text{ADT Leg 1} + \text{ADT Leg 2} \dots \text{ADT Leg 4}) \times \text{five years}]} / \text{MV}$

Where:

ADT = average daily traffic

MV = million vehicles

Weighted accident number = [(the number of PDO accidents)x**1**]+[(the number of minor accidents)x**5**]+[(the number of major accidents)x**10**]+[(the number of fatal accidents)x**20**]

The basis for determining the accident rate is as follows. First, the individual ADT's from each leg (either three or four legs) of that intersection is totaled and then divided the total by two. This is necessary since vehicles are actually measured twice: once when entering the intersection and again when leaving. Second, the entering ADT is multiplied by one year (365 days) times the reporting period (five years). Third, since accidents are rare events, this calculated accident rate is usually a very small decimal fraction. Therefore, for ease in writing, the rate is multiplied by one million and expressed as accidents involvements per million users or miles of travel.

There is one final factor to be accounted for in the analysis of accident rates from year to year. Typically, the various policing agencies will only investigate injury accidents or property damage accidents above a certain dollar amount. When that amount is raised the apparent effect is a reduction in traffic accidents rather than a change in reporting procedures. Many minor "fender bender" accidents therefore go unreported. Also, many drivers do not want agencies to discover that an accident has occurred for fear that they will lose their license or have their insurance rates increased. When researching accidents, one should be cautious about the differences between accident rates for different years.

Five tables follow; each ranked by different criteria. The first table ranks the accidents by total number of accidents without regard to traffic volumes (Table 1). The next two tables are ranked by an unweighted and a weighted rate (Tables 2 and 3) while the fourth and fifth tables are sorted by city, then ranked by an unweighted and a weighted rate (Tables 4 and 5).

Southeast Region Intersection Accidents

Ranked by 5-Year Total Number of Accidents (2000-2004)

(not including intersections with fewer than 10 accidents or 1 fatality in 5 years)

Rank	City	Major Street (CDS #)	Intersection	Accidents				
				PDO	Minor Injuries	Major Injuries	Fatality	Total
1	Juneau	296000	Egan / Loop	31	30	1	0	62
2	Juneau	296000	Egan / Salmon Creek	28	27	2	0	57
3	Juneau	296000	Egan / Vanderbilt	27	27	0	0	54
4	Juneau	296000	Egan / Mcnugget	24	30	0	0	54
5	Juneau	296000	Egan / Sunny Drive	27	23	0	0	50
6	Juneau	296400	Loop / Atlin / Mall	23	23	2	0	48
7	Juneau	296000	Egan / 10th	30	16	0	0	46
8	Juneau	296000	Egan / Yandukin	25	17	2	0	44
9	Juneau	296400	Loop / Stephen Richards	9	21	3	2	35
10	Ketchikan	291400	S. Tongass / Jefferson	20	5	4	0	29
11	Juneau	296000	Egan / Highland	14	11	1	0	26
12	Ketchikan	291400	S. Tongass / Washington	14	6	1	0	21
13	Juneau	296331	Glacier Hwy / Old Dairy Rd / Trout	9	11	1	0	21
14	Juneau	296000	Egan / Willoughby	6	13	1	0	20
15	Juneau	296000	Egan / Riverside	12	8	0	0	20
16	Juneau	296500	Riverside / Vintage	13	5	1	0	19
17	Juneau	296000	Egan / 12th	9	7	0	0	16
18	Juneau	296229	Lemon Rd / Sunny Connector	9	7	0	0	16
19	Ketchikan	291400	S. Tongass / Carlanna Lake Rd.	10	5	0	0	15
20	Sitka	295400	Halibut Pt. Rd. / Peterson	11	3	1	0	15
21	Ketchikan	291500	N. Tongass / Heckman	8	6	0	0	14
22	Juneau	296016	Willoughby / 10th	8	6	0	0	14
23	Juneau	296331	Glacier Hwy / Shell Simmons	10	4	0	0	14
24	Juneau	296331	Glacier Hwy / Jordan	8	6	0	0	14
25	Ketchikan	291400	S. Tongass / Adams	6	7	0	0	13
26	Ketchikan	291400	S. Tongass / Grant	9	2	2	0	13
27	Juneau	296000	Egan / Main	8	4	1	0	13
28	Ketchikan	291400	S. Tongass / Water	9	3	0	0	12
29	Sitka	295505	Lake / Lincoln	12	0	0	0	12
30	Juneau	296229	Lemon Rd / Anka	3	7	1	1	12
31	Juneau	296400	Loop / Mendenhall Blvd / Valley	5	6	1	0	12
32	Ketchikan	291400	S. Tongass / Schoenbar	7	4	0	0	11
33	Petersburg	294020	Nordic Dr. / Haugen Dr.	7	4	0	0	11
34	Sitka	295400	Halibut Pt. Rd. / Lake St.	8	3	0	0	11
35	Juneau	296400	Loop / Nancy	4	7	0	0	11
36	Ketchikan	291400	S. Tongass / Mission	5	4	1	0	10
37	Ketchikan	291415	Jefferson / First	7	3	0	0	10
38	Sitka	295400	Halibut Pt. Rd. / Cascade Creek	5	4	1	0	10
39	Sitka	295400	Halibut Pt. Rd / Brady	7	3	0	0	10
40	Juneau	296040	Main St. / Calhoun	5	5	0	0	10
41	Juneau	296110	S. Douglas Hwy / N. Douglas Hwy	4	5	1	0	10
42	Juneau	296500	Riverside / Stephen Richards	7	3	0	0	10
43	Juneau	296110	S. Douglas Hwy / Cordova	3	3	0	1	7
44	Ketchikan	291500	N. Tongass / Sunset Dr.	4	1	0	1	6
45	Sitka	295500	Sawmill Creek Rd / Baranof	3	1	0	1	5
46	Ketchikan	291400	S. Tongass / Madison	1	1	1	1	4

Southeast Region Intersection Accident Rate Ranking

Ranked by 5-Year Weighted Accident Rate (2000-2004)

(not including intersections with fewer than 10 accidents or at least 1 fatality in 5 years)

Rank	City	Major Street (CDS #)	Intersection	Accidents					Average No. of Accidents	AADT	5 Yr Unwtd Acc Rate	5 Yr Wtd Acc Rate
				PDO	Minor Injuries	Major Injuries	Fatality	Total				
1	Juneau	296400	Loop / Stephen Richards	9	21	3	2	35	7	18154	1.06	5.55
2	Juneau	296000	Egan / Salmon Creek	28	27	2	0	57	11.4	27498	1.14	3.65
3	Juneau	296000	Egan / Vanderbilt	27	27	0	0	54	10.8	26675	1.11	3.33
4	Juneau	296000	Egan / Willoughby	6	13	1	0	20	4	14149	0.77	3.14
5	Ketchikan	291500	N. Tongass / Sunset Dr.	4	1	0	1	6	1.2	5084	0.65	3.13
6	Juneau	296400	Loop / Atlin / Mall	23	23	2	0	48	9.6	28707	0.92	3.02
7	Juneau	296000	Egan / Loop	31	30	1	0	62	12.4	36327	0.94	2.88
8	Juneau	296000	Egan / Mcnugget	24	30	0	0	54	10.8	33943	0.87	2.81
9	Juneau	296000	Egan / Sunny Drive	27	23	0	0	50	10	27875	0.98	2.79
10	Juneau	296229	Lemon Rd / Anka	3	7	1	1	12	2.4	14102	0.47	2.64
11	Juneau	296331	Glacier Hwy / Old Dairy Rd / Trout	9	11	1	0	21	4.2	15400	0.75	2.63
12	Juneau	296016	Willoughby / 10th	8	6	0	0	14	2.8	8291	0.93	2.51
13	Juneau	296000	Egan / Yandukin	25	17	2	0	44	8.8	30989	0.78	2.30
14	Ketchikan	291415	Jefferson / First	7	3	0	0	10	2	5325	1.03	2.26
15	Ketchikan	291400	S. Tongass / Jefferson	20	5	4	0	29	5.8	20824	0.76	2.24
16	Juneau	296000	Egan / 10th	30	16	0	0	46	9.2	27392	0.92	2.20
17	Juneau	296040	Main St. / Calhoun	5	5	0	0	10	2	7634	0.72	2.15
18	Sitka	295400	Halibut Pt. Rd. / Cascade Creek	5	4	1	0	10	2	9170	0.60	2.09
19	Juneau	296400	Loop / Mendenhall Blvd / Valley	5	6	1	0	12	2.4	11839	0.56	2.08
20	Juneau	296000	Egan / Highland	14	11	1	0	26	5.2	22006	0.65	1.97
21	Petersburg	294020	Nordic Dr. / Haugen Dr.	7	4	0	0	11	2.2	7932	0.76	1.87
22	Juneau	296229	Lemon Rd / Sunny Connector	9	7	0	0	16	3.2	12954	0.68	1.86
23	Juneau	296110	S. Douglas Hwy / Cordova	3	3	0	1	7	1.4	11258	0.34	1.85
24	Juneau	296331	Glacier Hwy / Jordan	8	6	0	0	14	2.8	12259	0.63	1.70
25	Sitka	295400	Halibut Pt. Rd. / Peterson	11	3	1	0	15	3	12603	0.65	1.57
26	Ketchikan	291400	S. Tongass / Washington	14	6	1	0	21	4.2	19416	0.59	1.52
27	Sitka	295500	Sawmill Creek Rd / Baranof	3	1	0	1	5	1	10141	0.27	1.51
28	Juneau	296000	Egan / Main	8	4	1	0	13	2.6	13908	0.51	1.50
29	Juneau	296110	S. Douglas Hwy / N. Douglas Hwy	4	5	1	0	10	2	14821	0.37	1.44
30	Ketchikan	291500	N. Tongass / Heckman	8	6	0	0	14	2.8	15310	0.50	1.36
31	Ketchikan	291400	S. Tongass / Mission	5	4	1	0	10	2	14432	0.38	1.33
32	Juneau	296500	Riverside / Vintage	13	5	1	0	19	3.8	19979	0.52	1.32
33	Juneau	296000	Egan / Riverside	12	8	0	0	20	4	21777	0.50	1.31
34	Juneau	296331	Glacier Hwy / Shell Simmons	10	4	0	0	14	2.8	12785	0.60	1.29
35	Juneau	296500	Riverside / Stephen Richards	7	3	0	0	10	2	9924	0.55	1.21
36	Ketchikan	291400	S. Tongass / Adams	6	7	0	0	13	2.6	19205	0.37	1.17
37	Juneau	296000	Egan / 12th	9	7	0	0	16	3.2	21454	0.41	1.12
38	Ketchikan	291400	S. Tongass / Grant	9	2	2	0	13	2.6	19438	0.37	1.10
39	Ketchikan	291400	S. Tongass / Madison	1	1	1	1	4	0.8	18557	0.12	1.06
40	Sitka	295400	Halibut Pt. Rd / Brady	7	3	0	0	10	2	11375	0.48	1.06
41	Juneau	296400	Loop / Nancy	4	7	0	0	11	2.2	20883	0.29	1.02
42	Ketchikan	291400	S. Tongass / Carlanna Lake Rd.	10	5	0	0	15	3	19424	0.42	0.99
43	Sitka	295400	Halibut Pt. Rd. / Lake St.	8	3	0	0	11	2.2	15371	0.39	0.82
44	Ketchikan	291400	S. Tongass / Schoenbar	7	4	0	0	11	2.2	19742	0.31	0.75
45	Ketchikan	291400	S. Tongass / Water	9	3	0	0	12	2.4	19402	0.34	0.68
46	Sitka	295505	Lake / Lincoln	12	0	0	0	12	2.4	12415	0.53	0.53

Southeast Region Intersection Accident Rate Ranking

Ranked by 5-Year Unweighted Accident Rate (2000-2004)

(not including intersections with fewer than 10 accidents or at least 1 fatality in 5 years)

Rank	City	Major Street (CDS #)	Intersection	Accidents					Average No. of Accidents	AADT	5 Yr Unwtd Acc Rate	5 Yr Wtd Acc Rate
				PDO	Minor Injuries	Major Injuries	Fatality	Total				
1	Juneau	296000	Egan / Salmon Creek	28	27	2	0	57	11.4	27498	1.14	3.65
2	Juneau	296000	Egan / Vanderbilt	27	27	0	0	54	10.8	26675	1.11	3.33
3	Juneau	296400	Loop / Stephen Richards	9	21	3	2	35	7	18154	1.06	5.55
4	Ketchikan	291415	Jefferson / First	7	3	0	0	10	2	5325	1.03	2.26
5	Juneau	296000	Egan / Sunny Drive	27	23	0	0	50	10	27875	0.98	2.79
6	Juneau	296000	Egan / Loop	31	30	1	0	62	12.4	36327	0.94	2.88
7	Juneau	296016	Willoughby / 10th	8	6	0	0	14	2.8	8291	0.93	2.51
8	Juneau	296000	Egan / 10th	30	16	0	0	46	9.2	27392	0.92	2.20
9	Juneau	296400	Loop / Atlin / Mall	23	23	2	0	48	9.6	28707	0.92	3.02
10	Juneau	296000	Egan / Mcnugget	24	30	0	0	54	10.8	33943	0.87	2.81
11	Juneau	296000	Egan / Yandukin	25	17	2	0	44	8.8	30989	0.78	2.30
12	Juneau	296000	Egan / Willoughby	6	13	1	0	20	4	14149	0.77	3.14
13	Ketchikan	291400	S. Tongass / Jefferson	20	5	4	0	29	5.8	20824	0.76	2.24
14	Petersburg	294020	Nordic Dr. / Haugen Dr.	7	4	0	0	11	2.2	7932	0.76	1.87
15	Juneau	296331	Glacier Hwy / Old Dairy Rd / Trout	9	11	1	0	21	4.2	15400	0.75	2.63
16	Juneau	296040	Main St. / Calhoun	5	5	0	0	10	2	7634	0.72	2.15
17	Juneau	296229	Lemon Rd / Sunny Connector	9	7	0	0	16	3.2	12954	0.68	1.86
18	Sitka	295400	Halibut Pt. Rd. / Peterson	11	3	1	0	15	3	12603	0.65	1.57
19	Juneau	296000	Egan / Highland	14	11	1	0	26	5.2	22006	0.65	1.97
20	Ketchikan	291500	N. Tongass / Sunset Dr.	4	1	0	1	6	1.2	5084	0.65	3.13
21	Juneau	296331	Glacier Hwy / Jordan	8	6	0	0	14	2.8	12259	0.63	1.70
22	Juneau	296331	Glacier Hwy / Shell Simmons	10	4	0	0	14	2.8	12785	0.60	1.29
23	Sitka	295400	Halibut Pt. Rd. / Cascade Creek	5	4	1	0	10	2	9170	0.60	2.09
24	Ketchikan	291400	S. Tongass / Washington	14	6	1	0	21	4.2	19416	0.59	1.52
25	Juneau	296400	Loop / Mendenhall Blvd / Valley	5	6	1	0	12	2.4	11839	0.56	2.08
26	Juneau	296500	Riverside / Stephen Richards	7	3	0	0	10	2	9924	0.55	1.21
27	Sitka	295505	Lake / Lincoln	12	0	0	0	12	2.4	12415	0.53	0.53
28	Juneau	296500	Riverside / Vintage	13	5	1	0	19	3.8	19979	0.52	1.32
29	Juneau	296000	Egan / Main	8	4	1	0	13	2.6	13908	0.51	1.50
30	Juneau	296000	Egan / Riverside	12	8	0	0	20	4	21777	0.50	1.31
31	Ketchikan	291500	N. Tongass / Heckman	8	6	0	0	14	2.8	15310	0.50	1.36
32	Sitka	295400	Halibut Pt. Rd / Brady	7	3	0	0	10	2	11375	0.48	1.06
33	Juneau	296229	Lemon Rd / Anka	3	7	1	1	12	2.4	14102	0.47	2.64
34	Ketchikan	291400	S. Tongass / Carlanna Lake Rd.	10	5	0	0	15	3	19424	0.42	0.99
35	Juneau	296000	Egan / 12th	9	7	0	0	16	3.2	21454	0.41	1.12
36	Sitka	295400	Halibut Pt. Rd. / Lake St.	8	3	0	0	11	2.2	15371	0.39	0.82
37	Ketchikan	291400	S. Tongass / Mission	5	4	1	0	10	2	14432	0.38	1.33
38	Ketchikan	291400	S. Tongass / Adams	6	7	0	0	13	2.6	19205	0.37	1.17
39	Juneau	296110	S. Douglas Hwy / N. Douglas Hwy	4	5	1	0	10	2	14821	0.37	1.44
40	Ketchikan	291400	S. Tongass / Grant	9	2	2	0	13	2.6	19438	0.37	1.10
41	Juneau	296110	S. Douglas Hwy / Cordova	3	3	0	1	7	1.4	11258	0.34	1.85
42	Ketchikan	291400	S. Tongass / Water	9	3	0	0	12	2.4	19402	0.34	0.68
43	Ketchikan	291400	S. Tongass / Schoenbar	7	4	0	0	11	2.2	19742	0.31	0.75
44	Juneau	296400	Loop / Nancy	4	7	0	0	11	2.2	20883	0.29	1.02
45	Sitka	295500	Sawmill Creek Rd / Baranof	3	1	0	1	5	1	10141	0.27	1.51
46	Ketchikan	291400	S. Tongass / Madison	1	1	1	1	4	0.8	18557	0.12	1.06

Table 4

Southeast Region Intersection Accident Rate Ranking

Sorted by City: Ranked by 5-Year Weighted Accident Rate (2000-2004)

(not including intersections with fewer than 10 accidents or at least 1 fatality in 5 years)

Rank	City	Major Street (CDS #)	Intersection	Accidents					Average No. of Accidents	AADT	5 Yr Unwtd Acc Rate	5 Yr Wtd Acc Rate
				PDO	Minor Injuries	Major Injuries	Fatality	Total				
1	Juneau	296400	Loop / Stephen Richards	9	21	3	2	35	7	18154	1.06	5.55
2	Juneau	296000	Egan / Salmon Creek	28	27	2	0	57	11.4	27498	1.14	3.65
3	Juneau	296000	Egan / Vanderbilt	27	27	0	0	54	10.8	26675	1.11	3.33
4	Juneau	296000	Egan / Willoughby	6	13	1	0	20	4	14149	0.77	3.14
5	Juneau	296400	Loop / Atlin / Mall	23	23	2	0	48	9.6	28707	0.92	3.02
6	Juneau	296000	Egan / Loop	31	30	1	0	62	12.4	36327	0.94	2.88
7	Juneau	296000	Egan / Mcnugget	24	30	0	0	54	10.8	33943	0.87	2.81
8	Juneau	296000	Egan / Sunny Drive	27	23	0	0	50	10	27875	0.98	2.79
9	Juneau	296229	Lemon Rd / Anka	3	7	1	1	12	2.4	14102	0.47	2.64
10	Juneau	296331	Glacier Hwy / Old Dairy Rd / Trout	9	11	1	0	21	4.2	15400	0.75	2.63
11	Juneau	296016	Willoughby / 10th	8	6	0	0	14	2.8	8291	0.93	2.51
12	Juneau	296000	Egan / Yandukin	25	17	2	0	44	8.8	30989	0.78	2.30
13	Juneau	296000	Egan / 10th	30	16	0	0	46	9.2	27392	0.92	2.20
14	Juneau	296040	Main St. / Calhoun	5	5	0	0	10	2	7634	0.72	2.15
15	Juneau	296400	Loop / Mendenhall Blvd / Valley	5	6	1	0	12	2.4	11839	0.56	2.08
16	Juneau	296000	Egan / Highland	14	11	1	0	26	5.2	22006	0.65	1.97
17	Juneau	296229	Lemon Rd / Sunny Connector	9	7	0	0	16	3.2	12954	0.68	1.86
18	Juneau	296110	S. Douglas Hwy / Cordova	3	3	0	1	7	1.4	11258	0.34	1.85
19	Juneau	296331	Glacier Hwy / Jordan	8	6	0	0	14	2.8	12259	0.63	1.70
20	Juneau	296000	Egan / Main	8	4	1	0	13	2.6	13908	0.51	1.50
21	Juneau	296110	S. Douglas Hwy / N. Douglas Hwy	4	5	1	0	10	2	14821	0.37	1.44
22	Juneau	296500	Riverside / Vintage	13	5	1	0	19	3.8	19979	0.52	1.32
23	Juneau	296000	Egan / Riverside	12	8	0	0	20	4	21777	0.50	1.31
24	Juneau	296331	Glacier Hwy / Shell Simmons	10	4	0	0	14	2.8	12785	0.60	1.29
25	Juneau	296500	Riverside / Stephen Richards	7	3	0	0	10	2	9924	0.55	1.21
26	Juneau	296000	Egan / 12th	9	7	0	0	16	3.2	21454	0.41	1.12
27	Juneau	296400	Loop / Nancy	4	7	0	0	11	2.2	20883	0.29	1.02
1	Ketchikan	291500	N. Tongass / Sunset Dr.	4	1	0	1	6	1.2	5084	0.65	3.13
2	Ketchikan	291415	Jefferson / First	7	3	0	0	10	2	5325	1.03	2.26
3	Ketchikan	291400	S. Tongass / Jefferson	20	5	4	0	29	5.8	20824	0.76	2.24
4	Ketchikan	291400	S. Tongass / Washington	14	6	1	0	21	4.2	19416	0.59	1.52
5	Ketchikan	291500	N. Tongass / Heckman	8	6	0	0	14	2.8	15310	0.50	1.36
6	Ketchikan	291400	S. Tongass / Mission	5	4	1	0	10	2	14432	0.38	1.33
7	Ketchikan	291400	S. Tongass / Adams	6	7	0	0	13	2.6	19205	0.37	1.17
8	Ketchikan	291400	S. Tongass / Grant	9	2	2	0	13	2.6	19438	0.37	1.10
9	Ketchikan	291400	S. Tongass / Madison	1	1	1	1	4	0.8	18557	0.12	1.06
10	Ketchikan	291400	S. Tongass / Carlanna Lake Rd.	10	5	0	0	15	3	19424	0.42	0.99
11	Ketchikan	291400	S. Tongass / Schoenbar	7	4	0	0	11	2.2	19742	0.31	0.75
12	Ketchikan	291400	S. Tongass / Water	9	3	0	0	12	2.4	19402	0.34	0.68
1	Petersburg	294020	Nordic Dr. / Haugen Dr.	7	4	0	0	11	2.2	7932	0.76	1.87
1	Sitka	295400	Halibut Pt. Rd. / Cascade Creek	5	4	1	0	10	2	9170	0.60	2.09
2	Sitka	295400	Halibut Pt. Rd. / Peterson	11	3	1	0	15	3	12603	0.65	1.57
3	Sitka	295500	Sawmill Creek Rd / Baranof	3	1	0	1	5	1	10141	0.27	1.51
4	Sitka	295400	Halibut Pt. Rd / Brady	7	3	0	0	10	2	11375	0.48	1.06
5	Sitka	295400	Halibut Pt. Rd. / Lake St.	8	3	0	0	11	2.2	15371	0.39	0.82
6	Sitka	295505	Lake / Lincoln	12	0	0	0	12	2.4	12415	0.53	0.53

Table 5

Southeast Region Intersection Accident Rate Ranking

Sorted by City: Ranked by 5-Year Unweighted Accident Rate (2000-2004)

(not including intersections with fewer than 10 accidents or at least 1 fatality in 5 years)

Rank	City	Major Street (CDS #)	Intersection	Accidents					Average No. of Accidents	AADT	5 Yr Unwtd Acc Rate	5 Yr Wtd Acc Rate
				PDO	Minor Injuries	Major Injuries	Fatality	Total				
1	Juneau	296000	Egan / Salmon Creek	28	27	2	0	57	11.4	27498	1.14	3.65
2	Juneau	296000	Egan / Vanderbilt	27	27	0	0	54	10.8	26675	1.11	3.33
3	Juneau	296400	Loop / Stephen Richards	9	21	3	2	35	7	18154	1.06	5.55
4	Juneau	296000	Egan / Sunny Drive	27	23	0	0	50	10	27875	0.98	2.79
5	Juneau	296000	Egan / Loop	31	30	1	0	62	12.4	36327	0.94	2.88
6	Juneau	296016	Willoughby / 10th	8	6	0	0	14	2.8	8291	0.93	2.51
7	Juneau	296000	Egan / 10th	30	16	0	0	46	9.2	27392	0.92	2.20
8	Juneau	296400	Loop / Atlin / Mall	23	23	2	0	48	9.6	28707	0.92	3.02
9	Juneau	296000	Egan / Mcnugget	24	30	0	0	54	10.8	33943	0.87	2.81
10	Juneau	296000	Egan / Yandukin	25	17	2	0	44	8.8	30989	0.78	2.30
11	Juneau	296000	Egan / Willoughby	6	13	1	0	20	4	14149	0.77	3.14
12	Juneau	296331	Glacier Hwy / Old Dairy Rd / Trout	9	11	1	0	21	4.2	15400	0.75	2.63
13	Juneau	296040	Main St. / Calhoun	5	5	0	0	10	2	7634	0.72	2.15
14	Juneau	296229	Lemon Rd / Sunny Connector	9	7	0	0	16	3.2	12954	0.68	1.86
15	Juneau	296000	Egan / Highland	14	11	1	0	26	5.2	22006	0.65	1.97
16	Juneau	296331	Glacier Hwy / Jordan	8	6	0	0	14	2.8	12259	0.63	1.70
17	Juneau	296331	Glacier Hwy / Shell Simmons	10	4	0	0	14	2.8	12785	0.60	1.29
18	Juneau	296400	Loop / Mendenhall Blvd / Valley	5	6	1	0	12	2.4	11839	0.56	2.08
19	Juneau	296500	Riverside / Stephen Richards	7	3	0	0	10	2	9924	0.55	1.21
20	Juneau	296500	Riverside / Vintage	13	5	1	0	19	3.8	19979	0.52	1.32
21	Juneau	296000	Egan / Main	8	4	1	0	13	2.6	13908	0.51	1.50
22	Juneau	296000	Egan / Riverside	12	8	0	0	20	4	21777	0.50	1.31
23	Juneau	296229	Lemon Rd / Anka	3	7	1	1	12	2.4	14102	0.47	2.64
24	Juneau	296000	Egan / 12th	9	7	0	0	16	3.2	21454	0.41	1.12
25	Juneau	296110	S. Douglas Hwy / N. Douglas Hwy	4	5	1	0	10	2	14821	0.37	1.44
26	Juneau	296110	S. Douglas Hwy / Cordova	3	3	0	1	7	1.4	11258	0.34	1.85
27	Juneau	296400	Loop / Nancy	4	7	0	0	11	2.2	20883	0.29	1.02
1	Ketchikan	291415	Jefferson / First	7	3	0	0	10	2	5325	1.03	2.26
2	Ketchikan	291400	S. Tongass / Jefferson	20	5	4	0	29	5.8	20824	0.76	2.24
3	Ketchikan	291500	N. Tongass / Sunset Dr.	4	1	0	1	6	1.2	5084	0.65	3.13
4	Ketchikan	291400	S. Tongass / Washington	14	6	1	0	21	4.2	19416	0.59	1.52
5	Ketchikan	291500	N. Tongass / Heckman	8	6	0	0	14	2.8	15310	0.50	1.36
6	Ketchikan	291400	S. Tongass / Carlanna Lake Rd.	10	5	0	0	15	3	19424	0.42	0.99
7	Ketchikan	291400	S. Tongass / Mission	5	4	1	0	10	2	14432	0.38	1.33
8	Ketchikan	291400	S. Tongass / Adams	6	7	0	0	13	2.6	19205	0.37	1.17
9	Ketchikan	291400	S. Tongass / Grant	9	2	2	0	13	2.6	19438	0.37	1.10
10	Ketchikan	291400	S. Tongass / Water	9	3	0	0	12	2.4	19402	0.34	0.68
11	Ketchikan	291400	S. Tongass / Schoenbar	7	4	0	0	11	2.2	19742	0.31	0.75
12	Ketchikan	291400	S. Tongass / Madison	1	1	1	1	4	0.8	18557	0.12	1.06
1	Petersburg	294020	Nordic Dr. / Haugen Dr.	7	4	0	0	11	2.2	7932	0.76	1.87
1	Sitka	295400	Halibut Pt. Rd. / Peterson	11	3	1	0	15	3	12603	0.65	1.57
2	Sitka	295400	Halibut Pt. Rd. / Cascade Creek	5	4	1	0	10	2	9170	0.60	2.09
3	Sitka	295505	Lake / Lincoln	12	0	0	0	12	2.4	12415	0.53	0.53
4	Sitka	295400	Halibut Pt. Rd / Brady	7	3	0	0	10	2	11375	0.48	1.06
5	Sitka	295400	Halibut Pt. Rd. / Lake St.	8	3	0	0	11	2.2	15371	0.39	0.82
6	Sitka	295500	Sawmill Creek Rd / Baranof	3	1	0	1	5	1	10141	0.27	1.51

B. Rural Highway Accident Rate Ranking

Rural highway accident rates reflect the frequency of non-intersection and non-urban highway accidents. Accordingly, only highway segments with few intersections were analyzed. Weighted and unweighted rates were computed for a five-year time period (January 2000 through December 2004).

Rates are given in accidents (weighted or unweighted) per million vehicle miles. Table 6 is ranked by an unweighted rate, and Table 7 is ranked by a weighted rate. The accident weighting factors are the same ones used to compute intersection accident rates.

The formulas used to compute the accident rates are as follows:

Unweighted rate:
$$\frac{(\text{Total accidents in five years})}{[(\text{ADT} \times \text{Miles in Highway segment} \times \text{five years})]/\text{MVM}}$$

Weighted rate:
$$\frac{(\text{Weighted accident number for five years})}{[(\text{ADT} \times \text{Miles in Highway segment} \times \text{five years})]/\text{MVM}}$$

Where:

ADT = average daily traffic

MVM = million vehicle miles

Weighted accident number = [(the number of PDO accidents)x1]+[(the number of minor accidents)x5]+[(the number of major accidents)x10]+[(the number of fatal accidents)x20]

The same words of caution described in the previous section, *Intersection Accident Rate Ranking*, is also appropriate here. It is always a good idea to verify and supplement computer generated data such as these tables by reviewing the actual police accident reports. When researching accidents, one should be cautious about differences between accident rates for different years.

TABLE 7

2000-2004
Rural Road Accident Rate Ranking
(Ranked by Weighted Accident Rate)

R A N K	Community	Road Name and Segment Description	Total Accidents	Weighted Accident Number	Average ADT	Length in miles	Unweighted Accident Rate *	Weighted Accident Rate **
1	Juneau	Fish Creek Rd. -All	9	40	102	5.89	8.20	36.46
2	Juneau	Glacier Hwy: Cohen - Herbert R.	19	96	502	6.184	3.35	16.93
3	Ketchikan	Revilla Rd (Ward Lake Rd.) - All	25	75	342	9.678	4.14	12.41
4	Juneau	Thane Rd. Rock Dump - Sheep Ck.	11	47	754	3.078	2.60	11.10
5	Skagway	Dyea Rd.: Observ. Pt. - Bridge	7	28	271	5.39	2.63	10.50
6	Prince of Wales	Hydaburg Rd: Jct. to Hydaburg	17	63	169	22.496	2.45	9.08
7	Juneau	Glacier Hwy. Herb. R. - Echo	11	50	265	13.044	1.74	7.92
8	Prince of Wales	Kasaan Road - All	4	17	74	17.87	1.66	7.04
9	Ketchikan	S. Tongass Herring Cv. - End	6	10	175	4.795	3.93	6.55
10	Yakutat	Lost River Road	2	25	264	8.254	0.50	6.29
11	Ketchikan	N. Tongass. Knudson Cv.- End	9	17	414	3.744	3.18	6.00
12	Prince of Wales	Craig - Port Saint Nicholas Road	7	34	710	5.3	1.02	5.39
13	Haines	Haines/Lutak Rd: Haines - Ferry Term	3	35	1030	3.654	0.44	5.10
14	Prince of Wales	North Prince of Wales Highway	4	31	222	15.53	0.64	4.93
15	Juneau	N. Douglas Rd. Eaglecrest-End	6	26	488	6.069	1.11	4.81
16	Prince of Wales	Craig/Kwk/Hollis: Hyd.Rd.-Kwk.	14	68	617	12.865	0.97	4.69
17	Haines	Mud Bay Rd. Small Tr- End	5	23	375	7.385	0.99	4.55
18	Prince of Wales	Craig/Kwk/Hollis: Hollis-Hyd.Rd.	6	27	335	10.462	0.94	4.22
19	Haines	Lutak Rd: Ferry Term.- End	2	10	249	5.468	0.80	4.02
20	Haines	Hns Hwy: Airport-Klukwan	26	79	609	17.904	1.31	3.97
21	Prince of Wales	Thorne Bay Road: All	4	17	158	17.477	0.79	3.37
22	Haines	Hns Hwy: Klukwan-Mosquito	10	18	607	5.724	1.58	2.84
23	Skagway	Klondike Hwy. Dyea Rd-Bord.	5	22	351	12.38	0.63	2.77
24	Haines	Hns Hwy: Mosquito-Border	3	11	191	13.023	0.66	2.42
25	Prince of Wales	Big Salt Road:Airport - End	7	23	390	14.555	0.68	2.22
26	Prince of Wales	Craig/Kwk/Hollis: Kwk.- Craig	12	40	1997	5.72	0.58	1.92
27	Yakutat	Yakutat-Airport Rd.	3	7	857	3.476	0.55	1.29
28	Prince of Wales	North Prince of Wales Road	2	6	42	64.43	0.40	1.21
29	Wrangell	Zimovia Hwy: Mill - End	2	2	293	7.755	0.48	0.48
30	Petersburg	Mitkof Hwy: Papke Ld. - End	2	2	127	22.402	0.39	0.39
31	Yakutat	Yakutat-Dangerous River Rd.: All	0	0	121	29.473	0.00	0.00

* Accidents / Million Vehicle Miles

** Weighted Accident Number / Million Vehicle Miles

TABLE 6

2000-2004
Rural Road Accident Rate Ranking
(Ranked by Unweighted Accident Rate)

RANK	Community	Road Name and Segment Description	Total Accidents	Weighted Accident Number	Average ADT	Length in miles	Unweighted Accident Rate *	Weighted Accident Rate *
1	Juneau	Fish Creek Rd. -All	9	40	102	5.89	8.20	36.46
2	Ketchikan	Revilla Rd (Ward Lake Rd.) - All	25	75	342	9.678	4.14	12.41
3	Ketchikan	S. Tongass Herring Cv. - End	6	10	175	4.795	3.93	6.55
4	Juneau	Glacier Hwy: Cohen - Herbert R.	19	96	502	6.184	3.35	16.93
5	Ketchikan	N. Tongass. Knudson Cv.- End	9	17	414	3.744	3.18	6.00
6	Skagway	Dyea Rd.: Observ. Pt. - Bridge	7	28	271	5.39	2.63	10.50
7	Juneau	Thane Rd. Rock Dump - Sheep Ck.	11	47	754	3.078	2.60	11.10
8	Prince of Wales	Hydaburg Rd: Jct. to Hydaburg	17	63	169	22.496	2.45	9.08
9	Prince of Wales	Kasaan Road - All	4	17	74	17.87	1.66	7.04
10	Juneau	Glacier Hwy. Herb. R.. - Echo	11	50	265	13.044	1.74	7.92
11	Haines	Hns Hwy: Klukwan-Mosquito	10	18	607	5.724	1.58	2.84
12	Haines	Hns Hwy: Airport-Klukwan	26	79	609	17.904	1.31	3.97
13	Juneau	N. Douglas Rd. Eaglecrest-End	6	26	488	6.069	1.11	4.81
14	Prince of Wales	Craig - Port Saint Nicholas Road	7	34	710	5.3	1.02	5.39
15	Haines	Mud Bay Rd. Small Tr- End	5	23	375	7.385	0.99	4.55
16	Prince of Wales	Craig/Kwk/Hollis: Hyd.Rd.-Kwk.	14	68	617	12.865	0.97	4.69
17	Prince of Wales	Craig/Kwk/Hollis: Hollis-Hyd.Rd.	6	27	335	10.462	0.94	4.22
18	Haines	Lutak Rd: Ferry Term.- End	2	10	249	5.468	0.80	4.02
19	Prince of Wales	Thorne Bay Road: All	4	17	158	17.477	0.79	3.37
20	Prince of Wales	Big Salt Road:Airport - End	7	23	390	14.555	0.68	2.22
21	Haines	Hns Hwy: Mosquito-Border	3	11	191	13.023	0.66	2.42
22	Prince of Wales	North Prince of Wales Highway	4	31	222	15.53	0.64	4.93
23	Skagway	Klondike Hwy. Dyea Rd-Bord.	5	22	351	12.38	0.63	2.77
24	Prince of Wales	Craig/Kwk/Hollis: Kwk.- Craig	12	40	1997	5.72	0.58	1.92
25	Yakutat	Yakutat-Airport Rd.	3	7	857	3.476	0.55	1.29
26	Yakutat	Lost River Road	2	25	264	8.254	0.50	6.29
27	Wrangell	Zimovia Hwy: Mill - End	2	2	293	7.755	0.48	0.48
28	Haines	Haines/Lutak Rd: Haines - Ferry Term	3	35	1030	3.654	0.44	5.10
29	Prince of Wales	North Prince of Wales Road	2	6	42	64.43	0.40	1.21
30	Petersburg	Mitkof Hwy: Papke Ld. - End	2	2	127	22.402	0.39	0.39
31	Yakutat	Yakutat-Dangerous River Rd.: All	0	0	121	29.473	0.00	0.00

* Accidents / Million Vehicle Miles

** Weighted Accident Number / Million Vehicle Miles

- **QUALITY OF OPERATION SECTION**

A. Quality of Operation at Signalized Intersections

Although it is desirable to analyze the quality of operation of all intersections within the region (several hundred locations), we are unable to due to limited resources. The busiest intersections are generally traffic signal controlled. Therefore, monitoring signalized intersections provides a good measure of the effectiveness of the most important nodes in the region's highway network.

The quality of operation at signalized intersections is measured by determining the level of service (LOS) at each intersection. LOS is determined by counting the number of vehicles at an intersection during peak traffic hours and estimating delay using the signalized intersection analysis process as described in the 2000 federal standard, "*Highway Capacity Manual*" (a publication of the Transportation Research Board).

The 2003 Traffic & Safety Report (and earlier reports) used the 1994 Highway Capacity Manual method to calculate LOS and delay. Some traffic counts that appear in both the 2003 and the 2004 reports will show different delay or LOS for this reason. Six levels of service are defined and are given letter designations, from A to F, with LOS A representing the best and LOS F the worst.

LOS is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS ratings are defined as follows for signalized intersections:

<i>Level of Service (LOS)</i>	<i>Average stopped delay per vehicle (seconds)</i>	<i>Effect</i>
A	<=10.0	Most vehicles aren't stopped
B	10.1 to 20.0	Low delay
C	20.1 to 35.0	Significant number of stopped vehicles
D	35.1 to 55.0	Noticeable congestion - occasional cycle failure
E	55.1 to 80.0	Limit of acceptable delay - frequent cycle failure
F	> 80.0	Unacceptable delay

TABLE 8

<i>Quality of Operation at Signalized Intersections</i>						
<i>(Unless otherwise noted, information refers to the PM peak hour)</i>						
City	Intersection	Date of most recent count	Total Entering Volume (Peak Hr)	Intersection		Comments
				Level of Service	Average Delay (Sec.)	
Juneau	Egan Drive/10th St	7/11/2000	3555	E	66.6	
	Egan Drive/Loop Rd	11/15/2004	3427	E	64.4	
	Egan Drive/Loop Rd	8/1/2005	2808	F	90.7	AM peak
	Egan Drive/Main St	8/15/2003	1373	A	9.7	
	Egan Drive/McNugget	6/26/2000	3799	D	41.3	
	Egan Drive/Riverside	7/18/2003	3369	C	33.3	
	Egan Drive/Salmon Ck	7/15/2003	3369	D	46.3	
	Egan Drive/Vanderbilt	6/9/2000	3001	E	59.3	
	Glacier Hwy/Jordan	7/25/2005	1241	B	11.4	
	Glacier Hwy/Shell Simmons	7/25/2005	1428	B	12.1	
	Lemon Rd/Anka	6/18/2003	1425	C	24.0	
	Lemon Rd/Kmart	10/13/2000	1206	X	X	Not in Operation
	Loop Rd/Atlin	5/27/2004	2540	C	33.7	
	Loop Rd/Mendenhall Blvd	7/19/2005	1446	B	20.0	
	Loop Rd/Stephen Richards	8/8/2005	2091	E	60.9	
Riverside Dr/Vintage	7/2/2003	1848	D	46.6		
Ketchikan	Carlanna Lake Rd./Tongass	6/19/2000	1661	C	35.0	
	Front St/Dock	6/11/2003	1341	B	13.5	
	Tongass/Jefferson St	6/6/2003	1985	C	28.4	
	Tongass/Walmart	5/20/2004	971	C	24.9	
	Tongass/Washington St	5/3/2006	1623	C	33.7	
Sitka	Halibut Pt. Road/Katlina	6/19/2003	1436	B	16.0	
	Lake/Lincoln					New Built in 2005

Note: Delay and Level of Service (LOS) were determined according to the 2000 Highway Capacity Manual.

B. Quality Of Operation at Unsignalized Intersections

There are different ways to measure quality of operation at unsignalized intersections, including direct delay measurement, capacity analysis, and signal warrant analysis. Signal warrant analysis has been used in this report because the data is readily available and it bears directly on the most common question asked about busy unsignalized intersections, “would that intersection work better with a signal?” The extent to which an intersection meets signal warrants is also indicative of its level of service. This section analyzes the region's busiest unsignalized and other selected principle intersections.

Determining whether intersections should be signalized is a two step process according to the *Manual on Uniform Traffic Control Devices* (MUTCD) published by the Federal Highway Administration. Intersections are first analyzed to see whether they meet any of the eight signal warrants defined in the MUTCD. Then if one or more of the warrants are met, the second step, an engineering study, is performed to determine whether signalization will improve the overall safety and/or operation of the intersection. The MUTCD allows signals to be installed only if both steps yield positive results.

Signal warrants are based on traffic volume, pedestrian volume, school crossings, accidents, signal coordination, or a combination of these warrants. Step one, determining whether warrants are met, is almost entirely a numerical process.

Step two is less determinate. Signals have both good and bad effects - as a general rule, they:

- Decrease peak hour side street delay
- Make peak hour entry from the side street less stressful
- Increase delay for main street traffic all day long
- Increase off-peak side street delay
- Facilitate pedestrian movement
- May have either a positive or negative effect on the number of accidents

The magnitude of these impacts depends to a large extent on traffic volume. The benefits of signalization are greater at higher traffic volumes while negative impacts are magnified at lower volumes. External factors such as spacing between adjacent intersections are also important to consider. All of these factors are weighed in determining whether a signal will improve intersection safety and operation.

Signal warrant analysis guidelines are not specific on treatment of right turning traffic. Although right turns disrupt intersection operation much less than left turns or through traffic, no guidance is provided on whether or how to discount them. Note, many of the intersections shown as meeting a warrant would not meet the warrants if right turns were discounted. No right turn discounting was done in our analysis unless there is a free right turn lane, in which case the right turning volume was discounted.

Another instance in which signal warrant guidelines are not comprehensive are intersections with heavy left turns from a main street. A literal reading of the guidelines provides no way to incorporate the conflict resulting from the left turns. However, the situation can be simulated by treating the left turn as a side street movement conflicting with a one-way main street. This has been done at two of Juneau's intersections, the Yandukin/Egan and Sunny/Egan intersections. Two peak hour numbers are shown at these locations, the first indicating the percentage of warrant attainment resulting from a literal application of the MUTCD analysis, the second with the analysis modified as described above.

This analysis is based on either two hour or twelve hour volume counts. Warrants 1a, 1b, 2, & 3 are analyzed with twelve hour data while warrant 3, the peak hour volume warrant, is analyzed with two hour data. The signal warrants analyzed in this report are those that are most commonly met. If other warrants are pertinent at a particular intersection, relevant information is included in the comments column.

The 8 signal warrants relate to the following issues:

- Warrant 1: Eight hour vehicular volume
- Warrant 2: Four hour vehicular volume
- Warrant 3: Peak hour volume
- Warrant 4: Pedestrian volume
- Warrant 5: School crossing
- Warrant 6: Coordinated signal system
- Warrant 7: Accident experience
- Warrant 8: Roadway Network (intersections of two or more major routes)

Of all the information in this report, signal warrant data is the easiest to misinterpret. It is important not to take the results of step one at face value without considering the practical questions raised by step two.

TABLE 9

Quality of Operation at Unsignalized Intersections							
Intersection	Most recent count	Total Entering Volume Pk. Hour	MUTCD Signal Warrants				Comments
			(% of attainment)				
			W1A	W1B	W2	W3	
Juneau							
Back Loop/Montana Creek PM	7/17/1997	397				28%	
Douglas/Cordova AM	7/8/2003	899				103%	Poor signal location due to proximity to roundabout
Egan/12th (12 hr)	7/16/2002	2180	13%	150%	75%	177%	Poor signal location, also entrance to Harris Harbor
Egan/8th Ave. PM	8/29/2000	1813				224%	Poor signal location due to alignment
Egan/9th Ave. PM	8/30/2000	1672				2%	
Egan/Aurora Harbor Entrance AM	8/19/2003	2186				30%	
Egan/Glacier Ave. Spur PM	9/11/2000	1220				38%	
Egan/Harbor Masters Entrance (12 hr)	4/4/2002	2369		13%		27%	Also entrance to the UAS Marine Tech Bldg.
Egan/Highland Dr. AM	5/31/2002	2703				112%	
Egan/Sunny Drive PM	9/29/2000	3060				685%	Interchange to be constructed
Egan/Vintage PM	8/21/2000	1676				177%	Poor signal location due to alignment
Egan/Whittier (12 hr)	3/7/2002	1561	13%	63%	24%	84%	
Egan/Willoughby (12 hr)	3/6/2002	1335	13%	50%	25%	66%	Poor signal location due to alignment
Egan/Yandukin PM	9/28/2000	3426				449%	Operation okay without signal. Traffic not delayed.
Glacier Ave /10th Ave PM	7/3/2003	1024				62%	
Glacier Ave/12th PM	9/1/2000	622				80%	
Glacier Ave/Highland AM	5/28/2002	622				80%	
Glacier/Fritz Cove	7/20/2005	1168				38%	
Glacier/Glacier Hwy. North PM	8/12/2003	1169				64%	
Glacier/Industrial PM	7/21/2005	1593				389%	Operation okay without signal.
Glacier/Nugget Mall entrance PM	9/10/1998	1408				55%	
Glacier/Old Dairy/Trout PM	7/22/2005	1664				88%	Poor signal location
Glacier/Professional Plaza PM	12/1/1998	963				28%	
Lemon Rd. (Glacier)/Davis PM	8/2/2005	1213				163%	
Lemon Rd. (Glacier)/Lemon Spur PM	12/18/2001	1016				98%	Road behind Fred Meyers, goes to Alaska USA
Lemon Rd. (Glacier)/Renninger PM	10/6/2000	1312				205%	Access road to DZ School
Lemon Rd. (Glacier)/Sunny Dr. PM	6/25/2003	1137				292%	Interchange to be constructed
Loop/Back Loop PM	4/21/2004	772				109%	Good roundabout location
Loop/Cinema PM	4/26/2004	1897				39%	
Loop/Dudley PM	5/25/2004	1550				28%	
Loop/Floyd Dryden AM	5/28/2003	1127				96%	Controlled by x-ing guards. Operation OK w/o signal.
Loop/Floyd Dryden 3PM	9/27/2005	1054				170%	Controlled by x-ing guards. Operation OK w/o signal.
Loop/Grant AM	4/22/2004	508				24%	
Loop/James AM	7/21/2004	1475				40%	
Loop/Kimberly PM	11/18/2004	769				4%	
Loop/McGinnus AM	4/26/2004	1143				116%	

TABLE 9

Quality of Operation at Unsignalized Intersections							
Intersection	Most recent count	Total Entering Volume Pk. Hour	MUTCD Signal Warrants				Comments
			(% of attainment)				
			W1A	W1B	W2	W3	
Juneau (cont.)							
Loop/Nancy AM	5/26/2004	1613				173%	Operation okay without signal, poor alignment Operation okay without signal, poor alignment
Loop/Nancy PM	5/26/2004	2071				46%	
Loop/Taku AM	4/23/2004	673				46%	
Loop/Thunder Mtn. PM	11/19/2004	839				11%	
Loop/Tongass AM	4/28/2004	1139				56%	
Main/Calhoun/4th PM	7/31/1998	553				43%	
Riverside / Stephan Richards PM	7/26/2005	1180				82%	
Willoughby/Whittier AM	4/4/2002	430				20%	
Yandukin/Crest PM	12/20/2001	220				0%	
Yandukin/Old Dairy PM	12/21/2001	317				0%	
Ketchikan							
Front/Mission (12 hr)	5/22/2001	1298	88%	100%	175%	142%	W4 (Pedestrian) met in summer
Mill (S. Tong.) / Bawden PM	6/5/2003	973				102%	
Mill (S. Tong.) / Main PM	6/13/2003	1076				109%	W4 (Pedestrian) met in summer Includes AMHS Ferry Terminal traffic
N. Tongass/ Bryant+FT PM	6/12/2003	1403				78%	
N. Tongass/ Post Office PM	6/2/2003	1592				164%	Good signal location
Tongass/3rd Ave. AM	5/13/2002	1394				44%	
Tongass/Deermount PM	6/3/2003	885				96%	
Tongass/Schoenbar PM	6/3/2003	1831				196%	
Tongass/Sealevel Dr. PM	10/7/1992	1851				89%	
Tongass/Totem Row AM	5/2/2006	416				13%	
Petersburg							
Main/Haugen Drive (12 hr)	6/6/2002	760	63%			49%	
Nordic / Gjoa	6/5/02	674				25%	
Sitka							
HPR/Cascade/Seamart PM	6/19/2003	872				82%	Roundabout in design
Lake/Sawmill/HPR (12 hr)	7/23/2001	1479	138%	63%	250%	197%	
Sawmill Crk Rd/Indian River PM	7/18/2001	927				18%	

The quality of operation at unsignalized intersections can also be measured by determining the level of service (LOS) at each intersection. LOS is determined by counting the number of vehicles at an intersection during peak traffic hours and estimating delay using the unsignalized intersection analysis process as described in the 2000 *Highway Capacity Manual*.

Unlike signalized intersections, average delay at unsignalized intersections is not indicative of the overall intersection operation. The major street never has to stop for through or right movements, and often only briefly for left turns. Therefore the LOS from the side street critical movement is used to determine the quality of operation for the intersection.

The LOS also deteriorates faster as delay increases for unsignalized intersections than for signalized intersections. This is because a driver at a signalized intersection inherently knows that he or she will eventually get a green light. A motorist at a stop controlled intersection must find an acceptable gap in traffic and is more likely to become nervous or frustrated after a long wait.

The 2003 Traffic & Safety Report used the 1994 Highway Capacity Manual method to calculate LOS and delay. Some traffic counts that appear in both the 2003 and the 2004 reports will show different delay or LOS for this reason.

LOS is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS ratings are defined as follows for unsignalized intersections:

<i>Level of Service (LOS)</i>	<i>Average stopped delay per vehicle (seconds)</i>	<i>Effect</i>
A	<=10.0	Most vehicles aren't stopped
B	10.1 to 15.0	Low delay
C	15.1 to 25.0	Significant number of stopped vehicles
D	25.1 to 35.0	Noticeable congestion - occasional cycle failure
E	35.1 to 50.0	Limit of acceptable delay - frequent cycle failure
F	> 50.0	Unacceptable delay

Level Of Service F is the point where traffic breaks down with more vehicles arriving than departing. Once an intersection reaches LOS F, delay is difficult to accurately calculate and depends on the traffic patterns before and after the analysis. For this reason, delay calculated above 100 seconds will be denoted with an *.

Table 9A

Level of Service (LOS) at Unsignalized Intersections

(Unless otherwise noted, information refers to the PM peak hour)

City	Intersection	Date of most recent count	Total Entering Volume (Peak Hr)	Critical Movement/ LOS	Critical Movement Delay (Sec.)	Comments
Juneau	Back Loop/Montana Ck Rd	07/07/1997	397	B	10.9	
	Douglas/Cordova AM	07/08/2003	899	D	27.9	
	Douglas/North Douglas	06/26/2003	1276	X	X	Roundabout newly constructed
	Egan/12th Ave.	07/16/2002	2180	F	82.7	10th / Egan provides main access
	Egan/8th Ave.	08/29/2000	1813	D	30.0	
	Egan/9th Ave.	08/30/2000	1672	A	8.7	
	Egan/Aurora Harbor Entrance	08/19/2003	2186	E	41.5	
	Egan/Glacier Ave. Spur	09/11/2000	1220	B	14.8	
	Egan/Harbor Master's Entrance	04/04/2002	2369	F	50.4	
	Egan/Highland Dr	05/31/2002	2703	D	34.6	
	Egan/Sunny Drive	09/29/2000	3060	F	*	Interchange planned
	Egan/Vintage	08/21/2000	1676	F	*	Operation OK w/ Rt Turns Only
	Egan/Whittier	09/13/2000	1601	E	36.9	
	Egan/Willoughby	09/14/2000	1626	E	45.0	
	Egan/Yandukin	09/28/2000	3426	E	41.0	Lt turns delay listed only, Rt turns yield to Egan thru traffic
	Glacier Egan/Fritz Cove	07/20/2005	1168	E	38.3	
	Glacier Egan/Industrial	08/23/2000	1593	F	*	Major delay is for vehicles turning Lt from trail parking lot. Vehicles can turn Rt, turn around at Job Ctr & turn Rt again.
	Glacier Nugget/Glacier Hwy N.	08/12/2003	1169	C	22.5	
	Glacier Nugget/Nugget Mall Entr.	09/10/1998	1408	D	25.8	
	Glacier Nugget/Old Dairy/Trout	07/22/2005	1664	F	78.9	
	Glacier Nugget/Profess. Plaza	12/01/1998	963	C	16.8	
	Glacier Willoughby/10th	07/03/2003	1024	F	67.0	
	Glacier Willoughby/12th	09/01/2000	622	B	10.0	
	Glacier Willoughby/Highland AM	05/28/2002	622	C	15.1	
	Lemon Rd. (Glacier)/Davis	08/02/2005	1213	D	27.7	
	Lemon Rd. (Glacier)/Lemon Spur	12/18/2001	1016	D	29.0	
	Lemon Rd. (Glacier)/Renninger	10/06/2000	1312	E	35.3	Dzantik'i Heeni Entrance
	Lemon Rd. (Glacier)/Sunny Dr.	06/25/2003	1137	E	40.4	
	Loop/Back Loop	04/21/2004	772	B	14.9	
	Loop/Cinema	04/26/2004	1897	E	43.0	

Table 9A

City	Intersection	Date of most recent count	Total Entering Volume (Peak Hr)	Critical Movement/ LOS	Critical Movement Delay (Sec.)	Comments
Juneau (Cont)	Loop/Dudley	05/25/2004	1550	D	29.8	
	Loop/Floyd Dryden (AM)	05/28/2003	1315	F	*	X-ing Guards help move traffic
	Loop/Floyd Dryden (3PM)	09/27/2005	1054	D	25.1	
	Loop/Grant AM	04/22/2004	508	B	12.7	
	Loop/James AM	07/21/2004	1475	C	19.8	
	Loop/Kimberly	11/18/2004	769	B	11.0	
	Loop/McGinnis AM	04/26/2004	1143	C	17.8	
	Loop/Nancy AM	05/26/2004	1613	F	*	Lane configuration helps facilitate Lt turns from Nancy
	Loop/Taku AM	04/23/2004	673	B	13.8	
	Loop / Thunder Mtn.	11/19/2004	839	C	15.4	
	Loop / Tongass AM	04/28/2004	1139	B	12.0	
	Main / Calhoun / 4th	07/31/1998	553	B	14.0	
	Riverside / Stephen Richards	07/26/2005	1180	F	54.0	
	Willoughby / Whittier	04/04/2002	430	B	10.8	
	Yandukin / Crest	12/20/2001	220	A	9.8	
Yandukin / Old Dairy	12/21/2001	317	B	10.3		
Ketchikan	Front / Mission	02/22/2001	1298, 81 ped	B	11.9	
	Mill / Bawden	06/13/2003	973, 153 ped	E	42.9	
	Main / Mill	06/05/2003	1076, 936 ped	F	*	Major delay occurs during summer. LOS D with low #s of Peds.
	N. Tongass / Bryant / FT	06/12/2003	1403	E	36.0	
	N. Tongass / Post Office	06/02/2003	1592	F	56.9	
	Tongass / 3rd Ave	05/13/2002	1394	C	19.0	
	Tongass / Deermount	06/03/2003	885	C	17.2	
	Tongass / Schoenbar	06/03/2003	1831	F	*	Monitoring situation. Will make changes is deemed feasible.
	Tongass / Sealevel	10/07/1992	1851	F	*	Count is old, needs to be re-counted
Sitka	S. Tongass / Totem Row	05/02/2006	416	B	10.6	
	HPR / Cascade / Seamart	06/19/2003	872	C	24.7	
	Lake / Sawmill / HPR	07/23/2001	1479	F	78.8	Roundabout to be constructed
Petersburg	Sawmill Crk / Indian River	07/18/2001	927	B	12.5	
	Nordic / Haugen Dr.	06/05/2002	760, 54 ped	B	14.7	
	Nordic / Gjoa	06/06/2002	674	B	12.7	

Note: Delay and Level of Service (LOS) were determined according to the 2000 Highway Capacity Manual.

* denotes a delay greater than 100 seconds

III. Vehicle Classification Section

Vehicle classification is the process by which the mix of traffic (percentage of trucks, cars, and other vehicles) is determined. There are 13 federal vehicle classifications, of which nine deal with trucks exclusively. For the purpose of this report, only the four most common classes (motorcycles, cars, pickups, and trucks) are listed in Table 10. Written descriptions of the Federal Highway Administration (FHWA) vehicle classifications and a graphical drawing are also included in this section.

Although familiar class names such as a car or pickup readily recall familiar vehicle types to one's mind, the reader should be aware that vehicle classification is based on the number of axles and the spacing between axles, not vehicle appearance. Consequently, class names sometimes do not match all vehicles included in the class. For example, errors occur when long, full-size cars are classified as pickups and short pickups are classified as compact cars. However, axle-based classification provides the information most important to highway designers and is the agreed upon standard.

Several one-week classification studies are conducted annually in this region. The studies are made with electronic counting equipment connected to rubber road tubes fastened across the roadway. Every year the FHWA directs the Traffic Data Section to conduct class studies at specific locations, usually on major thoroughfares. Many classification sites may be counted once, then not recounted because FHWA chooses a preferable or more representative class count location.

Seasonal fluctuations in traffic volumes can be substantial in Alaska and are an important factor in vehicle classification. Due to snowplowing operations and cold winter temperatures, we do not conduct rubber road tube classifications during the winter months. Typically the vehicle classification studies are done between May and October. Therefore, class counts reflect peak traffic and tourist volumes during the spring to fall conditions only. To correct for seasonal fluctuations, one needs to review permanent traffic recorder data. See the *Permanent Traffic Recorder Data* section.

FHWA VEHICLE TYPES

The vehicle types of interest to FHWA are described below. The classification scheme is separated into categories depending on whether the vehicle carries passengers or commodities. Non-passenger vehicles are further subdivided by number of axles and number of units including both power and trailer units.

A. FHWA VEHICLE CLASS DEFINITIONS

Type Name and Description:

1. **Motorcycles** (Optional) - All two-or three-wheeled motorized vehicles. Typical vehicles in this category have saddle type seats and are steered by handlebars rather than wheels. This category includes motorcycles, motor scooters, mopeds, motor-powered bicycles, and three-wheel motorcycles. This vehicle type may be reported at the option of the State.
2. **Passenger Cars** - All sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers and including those passenger cars pulling recreational or other light trailers.
3. **Other Two-Axle, Four-Tire Single Unit Vehicles** - All two-axel, four-tire vehicles, other than passenger cars. Included in this classification are pickups, panels, vans, and other vehicles such as campers, motor homes, ambulances, hearses, and carryalls. Other two-axle, four-tire single unit vehicles pulling recreational or other light trailers are included in this classification.
4. **Buses** - All vehicles manufactured as traditional passenger-carrying buses with two axles and six tires or three or more axles. This category includes only traditional buses (including school buses) functioning as passenger-carrying vehicles. Modified buses should be considered as trucks and be appropriately classified.

NOTE: In reporting information on trucks the following criteria should be used:

- a. Truck tractor units traveling without a trailer will be considered single unit trucks.
 - b. A truck tractor unit pulling other such units in a "saddle mount" configuration will be considered as a one single unit truck and will be defined only by the axles on the pulling unit.
 - c. Vehicles shall be defined by the number of axles in contact with the roadway. Therefore, "floating" axles are counted only when in the down position.
 - d. The term "trailer" includes both semi-and full trailers.
5. **Two-Axle, Six-Tire, Single Unit Trucks** - All vehicles on a single frame, including trucks, camping and recreational vehicles, motor homes, etc., having two axles and dual rear wheels

6. **Three-Axle Single Unit Trucks** - All vehicles on a single frame, including trucks, camping and recreational vehicles, motor homes etc., having three axles.
7. **Four or More Axle Single Unit Trucks** - All trucks on a single frame with four or more axles.
8. **Four or Less Axle Single Trailer Trucks** - All vehicles with four or less axles consisting of two units, one of which is a tractor or straight truck power unit.
9. **Five-Axle Single Trailer Trucks** - All five-axle vehicles consisting of two units, one of which is a tractor or straight truck power unit.
10. **Six or More Axle Single Trailer Trucks** - All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.
11. **Five or Less Axle Multitrailer Trucks** - All vehicles with five or less axles consisting of three or more units, one of which is a tractor or straight truck power unit.
12. **Six-Axle Multitrailer Trucks** - All six-axle vehicles consisting of three or more units, one of which is a tractor or straight truck power unit.
13. **Seven or More Axle Multitrailer Trucks** - All vehicles with seven or more axles consisting of three or more units, one of which is a tractor or straight truck power unit.

TABLE 10

Vehicle Classification							
City	Road Name	Study Date	Location	Motor-cycles	Cars	Pick-ups	Trucks
Angoon	Kootznahoo Inlet R	1995	Ferry Terminal - Seaplane Access	0.4%	71.9%	23.6%	4.1%
Haines	Haines Hwy.	1994	At Ferry Terminal	0.5%	56.7%	37.9%	5.0%
Haines	Haines Hwy.	1993	At Piedad Rd.	0.3%	50.2%	39.3%	10.3%
Haines	Haines Hwy.	1997	betwn 6th St & Mud Bay Road	1.7%	60.3%	36.1%	1.9%
Haines	Haines Hwy.	1996	betwn Big Boulder & Border	2.2%	47.3%	36.8%	13.7%
Haines	Haines Hwy.	2003	betwn Mud Bay Rd & Sawmill Rd	0.6%	54.1%	36.4%	8.8%
Haines	Haines Hwy.	2005	betwn Sawmill Rd & Airport	0.2%	53.7%	34.2%	11.8%
Haines	Haines Hwy.	1995	Chilkat R Bridge	0.6%	48.2%	38.1%	13.1%
Haines	Haines Hwy.	2003	Kluckwan - Misquito Lake Rd.	0.1%	54.6%	36.8%	8.5%
Haines	Haines Hwy.	1994	Mile Post 16	0.4%	57.3%	36.9%	5.4%
Haines	Haines Hwy.	2004	Milepost 12 - Kluckwan	1.0%	53.3%	28.9%	16.8%
Haines	Haines Hwy.	1995	milepost 8	0.7%	55.8%	33.9%	9.6%
Haines	Haines Hwy.	2005	Mosquito Lake - Big Boulder Cr	0.9%	56.1%	36.5%	6.5%
Haines	Haines Hwy.	1994	Muncaster Creek Bridge	0.8%	52.6%	38.7%	7.8%
Haines	Haines Lutak Rd	1996	betwn Ferry Terminal & Haines	0.7%	49.8%	41.7%	7.8%
Haines	Haines Lutak Rd	2002	Ferry - Front St.	2.2%	51.2%	36.4%	10.2%
Haines	Main St.	1992	Btw Front & Second Ave.	0.2%	61.3%	36.2%	2.3%
Haines	Mosquito Lk Rd	1995	near jct w/Haines Hwy	1.1%	32.2%	41.4%	25.9%
Haines	Mud Bay Rd	1995	near State Fairgrounds access Rd	1.1%	60.2%	35.2%	3.6%
Haines	Mud Bay Rd.	1994	Small Tract-Lietnekoff Cove	1.0%	60.8%	34.6%	3.6%
Haines	Old Haines Hwy.	2003	Haines Hwy - Beach Rd.	1.0%	58.1%	32.8%	8.1%
Haines	Union St.	1994	Near 7th Ave.	0.5%	54.4%	39.3%	5.8%
Hyder	Salmon R Rd	1995	1 mi N of City Limits	1.2%	46.0%	50.3%	1.6%
Hyder	Salmon R Spur	1995	50' S. of US/Canada Border	1.4%	56.5%	36.1%	5.9%
Juneau	10th/Calhoun/4th/Gold	1993	10th St. at Goldbelt Bldg.	0.3%	81.0%	14.1%	4.7%
Juneau	10th/Calhoun/4th/Gold	1992	Calhoun at State Office Bldg.	0.0%	88.2%	11.0%	0.8%
Juneau	Anka St	1995	btw Shaune Dr & Commercial Way	0.4%	69.8%	24.6%	5.3%
Juneau	Berners Ave.	1994	Jct. Glacier Hwy.	0.5%	79.4%	17.9%	2.3%
Juneau	Douglas Hwy	1996	betwn Cordova & Lawson Ck.	0.2%	76.9%	20.5%	2.4%
Juneau	Eaglecrest Road	1997	At jct. with No. Douglas Hwy	0.4%	70.7%	23.9%	5.0%
Juneau	Eaglecrest Road	1997	betwn Fish Ck. Bridge & Lodge	4.4%	66.4%	20.7%	8.5%
Juneau	Egan Drive	2001	3 Mile Egan Drive	0.3%	77.2%	17.9%	4.6%
Juneau	Egan Drive	1997	betwn Highland Rd & 3 Mi.	0.1%	77.2%	20.7%	2.1%
Juneau	Egan Drive	2003	Btw Sunny Pt & Vanderbilt	0.3%	75.4%	20.1%	4.2%
Juneau	Egan Drive	2004	Btw Sunny Pt & Yandukin	0.4%	73.9%	20.0%	5.7%
Juneau	Egan Drive	2004	McNugget - Yandukin	0.0%	77.1%	19.2%	3.7%
Juneau	Egan Drive	1995	Norway Pt	0.6%	79.9%	14.5%	5.1%
Juneau	Fritz Cove Rd	1995	btw Glacier Hwy & Ann Coleman	0.3%	81.3%	16.3%	2.1%
Juneau	Glacier Highway	1997	At jct with Del Rae Rd.	0.1%	79.9%	18.3%	1.7%
Juneau	Glacier Highway	1991	At Jensine St.	0.3%	78.7%	17.4%	3.6%
Juneau	Glacier Highway	1992	Auke Lake Turnout	0.1%	79.3%	16.4%	4.3%
Juneau	Glacier Highway	1996	betwn Highland Dr & Ross Way	0.9%	70.2%	22.2%	6.7%
Juneau	Glacier Highway	1996	betwn Shrine & Tee Harbor	0.6%	64.9%	29.1%	5.4%
Juneau	Glacier Highway	1999	Btw Ross Way and Highland	1.4%	77.9%	14.2%	6.6%
Juneau	Glacier Highway	2002	Btw Shrine and Pt. Stevens Rd.	0.1%	72.6%	23.1%	4.2%
Juneau	Glacier Highway	1994	Btw Trout & Jordan Ave.	0.2%	80.7%	17.3%	1.8%
Juneau	Glacier Highway	1995	Ferry Terminal - Waydelich Cr Br	1.0%	71.4%	22.5%	5.1%
Juneau	Glacier Highway	1994	Herbert R Br-Dotson's Landing	2.2%	76.0%	17.9%	4.0%
Juneau	Glacier Highway	1995	near Fisheries Lab	0.1%	77.9%	18.4%	3.6%
Juneau	Glacier Highway	1991	Near Professional Plaza	0.2%	81.9%	16.2%	1.8%
Juneau	Glacier Highway	1994	S of Ferry Terminal	0.3%	78.0%	19.0%	2.8%
Juneau	Glacier Highway	1993	S. of Jct. with Pt Stephan's Rd.	0.2%	78.2%	19.4%	2.3%
Juneau	Glacier Highway	2003	Wayadelich Cr Br to N Jct Loop Rd	0.5%	71.4%	20.7%	7.5%
Juneau	Glacier Highway	1992	Willoughby near Driftwood Lodge	0.2%	72.0%	24.5%	3.4%
Juneau	Industrial Blvd.	2003	Industrial Blvd.	0.8%	57.3%	31.2%	10.7%
Juneau	Industrial Blvd.	1993	Jct. Glacier Hwy.	0.1%	68.1%	27.0%	4.8%

TABLE 10

Vehicle Classification							
City	Road Name	Study Date	Location	Motor-cycles	Cars	Pick-ups	Trucks
Juneau	Lemon Road (Glacier)	2004	betwn DOT & Sunny Dr	1.0%	74.7%	19.9%	4.3%
Juneau	Lemon Road (Glacier)	2004	betwn K-mart & Davis Ave.	0.5%	69.8%	21.2%	8.5%
Juneau	Lemon Road (Glacier)	2001	betwn Sunny Dr & K-mart	0.6%	72.2%	21.3%	5.8%
Juneau	Lemon Road (Glacier)	1995	btw Davis & Short Sts	0.4%	75.7%	19.6%	4.3%
Juneau	Lemon Road (Glacier)	1994	Switzer Creek Bridge	0.1%	76.0%	20.5%	3.5%
Juneau	Mend Glacier(Spur)	1995	Garnet - end	2.7%	74.5%	15.1%	7.7%
Juneau	Mendenhall Loop Rd.	1996	betwn F. Dryden & Steven Rich.	0.4%	75.1%	21.6%	2.9%
Juneau	Mendenhall Loop Rd.	2002	Btw S Richards & Floyd Dryden	0.4%	74.6%	20.2%	4.8%
Juneau	Mendenhall Loop Rd.	1997	Lake Creek Bridge	0.7%	73.5%	23.3%	2.5%
Juneau	Mendenhall Loop Rd.	1993	Near McGinnis St	0.1%	84.5%	14.5%	1.0%
Juneau	Mendenhall Loop Rd.	1995	near Mendenhall R Bridge	0.9%	73.6%	21.7%	3.8%
Juneau	N. Douglas Hwy	1998	betwn Eagle Ck. & Heliport	0.5%	76.9%	19.6%	3.0%
Juneau	N. Douglas Hwy	2004	N DOUGLAS HWY	0.6%	71.8%	20.9%	6.6%
Juneau	N. Douglas Hwy	1995	near Milepost 3	0.2%	79.8%	18.3%	1.8%
Juneau	Old Dairy Rd.	2002	Btw Crest and Yandukin	0.2%	68.4%	24.1%	7.3%
Juneau	Old Dairy Rd.	1993	USFS Compound	0.2%	72.8%	23.9%	3.2%
Juneau	Pt. Stephen's Rd.	1991	Jct. Glacier Highway	2.0%	72.4%	22.8%	2.9%
Juneau	Riverside Dr	1995	btw Diamond Park & Richards	0.4%	78.9%	19.6%	1.3%
Juneau	Shell Simmons Dr.	1996	Shell Simmons	0.2%	62.6%	29.8%	7.4%
Juneau	Thane (Egan)	1995	near Subport	0.2%	81.4%	15.1%	3.4%
Juneau	Thane Road	1994	AEL&P Warehouse	0.3%	72.5%	21.5%	5.7%
Juneau	Thane Road	1997	at Rock Dump	0.3%	68.2%	24.7%	6.8%
Juneau	Thane Road	1997	between Sewer Plant & Sheep Ck	0.4%	67.8%	24.5%	7.4%
Juneau	Thane Road	1997	betwn Ferry Term & Rock Dump	1.1%	62.4%	25.7%	10.8%
Juneau	Thane Road	1994	Franklin at Sealaska Park	0.3%	72.3%	19.8%	7.6%
Juneau	Twin Lakes Dr	1995	near Blackerby	0.2%	74.3%	21.0%	4.6%
Juneau	Twin Lakes Dr.	1992	Btw Hospital-Egan	0.3%	82.9%	13.0%	3.9%
Juneau	Whittier St.	1994	AK Dept. of Public Safety Bldg.	0.3%	83.2%	14.8%	1.8%
Juneau	Yandukin Dr	1995	btw \Old Dairy & Crest Rds.	0.2%	73.6%	21.8%	4.5%
Kake	Petersburg/Kake Rd.	1994	Btw Ferry Term-Ltl Gunnuck Cr Br	0.4%	66.9%	31.3%	1.5%
Ketchikan	Baranof Ave	1997	betwn Carlanna & Jackson	1.7%	76.9%	20.2%	1.2%
Ketchikan	Jefferson/Bryant	1994	Bryant St. Near Alder	0.3%	77.1%	21.8%	0.8%
Ketchikan	N. Tongass Hwy	1998	betwn Shoreline Dr. & Ward Cove Rd.	0.6%	71.6%	25.2%	2.6%
Ketchikan	N. Tongass Hwy	2003	Btw N. Jct. Shoreline & Ward Lake Rd	0.8%	67.2%	25.9%	6.0%
Ketchikan	N. Tongass Hwy	2004	btw Ward Lake Rd & Mill Entrance	0.8%	64.1%	27.9%	7.3%
Ketchikan	N. Tongass Hwy	2005	PTR @ Roses Caboose	0.2%	67.8%	26.8%	5.2%
Ketchikan	N. Tongass Hwy.	2000	betwn No. & So. Shoreline Dr.	0.2%	66.5%	25.7%	7.6%
Ketchikan	N. Tongass Hwy.	1993	Btw Pond Reef Rd & N Pt Higgins	0.3%	72.3%	25.4%	2.0%
Ketchikan	N. Tongass Hwy.	1995	near end of pavement	1.1%	65.5%	27.0%	6.5%
Ketchikan	N. Tongass Hwy.	1993	North of KTN Pulp Mill Entrance	0.1%	72.7%	24.6%	2.5%
Ketchikan	Park/Woodland/Deer	1993	On Park Ave. at Harris St.	0.2%	79.9%	17.8%	2.1%
Ketchikan	S. Pt. Higgins Rd.	1994	At Jct. with N. Tongass	0.6%	74.5%	23.1%	1.8%
Ketchikan	S. Tongass Ave	1997	betwn Bawden & Barney St.	0.7%	64.1%	32.0%	3.3%
Ketchikan	S. Tongass Ave	2002	betwn Gunner St. & Totem P. Row	0.1%	71.1%	22.6%	6.2%
Ketchikan	S. Tongass Ave	2001	betwn Shoenbar & Water St	0.4%	72.5%	21.9%	5.1%
Ketchikan	S. Tongass Ave	2002	btw Barney Way & Deermtont	0.4%	69.2%	23.7%	6.7%
Ketchikan	S. Tongass Hwy	1998	betwn Deermount & USCG	1.4%	71.2%	25.7%	1.7%
Ketchikan	S. Tongass Hwy.	1994	1000 ft south of Rotary Beach	0.4%	73.8%	24.0%	1.8%
Ketchikan	S. Tongass Hwy.	1994	At MilePost 3	0.4%	73.3%	24.7%	1.6%
Ketchikan	S. Tongass Hwy.	1993	Btw Bawden St. & Barney St.	0.6%	71.4%	21.8%	6.3%
Ketchikan	S. Tongass Hwy.	1994	Btw U.S.C.G. base & Forest Pk Dr	0.3%	76.3%	20.9%	2.5%
Ketchikan	S. Tongass Hwy.	1995	near Herring Cove	1.3%	69.8%	25.2%	3.8%
Ketchikan	S. Tongass Hwy.	1995	near Ktn Cr Bridge	0.5%	72.3%	23.2%	4.0%
Ketchikan	S. Tongass Hwy.	1995	near tunnel	0.3%	76.2%	21.1%	2.4%
Ketchikan	Schoenbar	2005	near Park Av	0.7%	69.5%	20.1%	9.6%
Ketchikan	South Tongass	1999	Btw Grant St. and Mission St.	0.5%	72.1%	20.9%	6.6%

TABLE 10

Vehicle Classification							
City	Road Name	Study Date	Location	Motor-cycles	Cars	Pick-ups	Trucks
Ketchikan	Ward Lake Road	1996	betwn Grassy Pt & White R. Spur	1.3%	61.1%	33.7%	3.9%
P.O.W.	Big Salt Road	1993	At Jct. Craig/Klawock Hwy.	0.0%	44.0%	50.6%	5.4%
P.O.W.	Big Salt Road	1996	Btw Airport & Duke Ck. Bridge	1.2%	35.4%	45.1%	18.3%
P.O.W.	Big Salt Road	1999	Btw Airpt Rd & Duke Cr Br.	0.2%	36.4%	46.2%	17.2%
P.O.W.	Big Salt Road	2001	Btw Craig/Klwk Hwy & Bennet Cr Br.	0.5%	48.9%	37.8%	12.7%
P.O.W.	Big Salt Road	1995	btw Duke Cr & Steelhead Cr Brdgs	3.2%	31.7%	43.5%	21.7%
P.O.W.	Craig to Hollis Hwy	1998	betwn Big Salt Rd & Hatchery	0.2%	49.8%	45.9%	4.1%
P.O.W.	Craig to Hollis Hwy	1998	betwn Hydaburg Jct. & End of Route	0.1%	55.0%	41.9%	3.1%
P.O.W.	Craig to Hollis Hwy	2005	Craig City Limits - MP 6 Klawock	0.7%	57.3%	32.4%	9.5%
P.O.W.	Craig to Hollis Hwy	2004	Hatchery - Hydaburg Rd	0.1%	48.2%	31.3%	20.4%
P.O.W.	Craig to Hollis Hwy	1995	near milepost 15	0.4%	41.2%	36.4%	23.0%
P.O.W.	Craig to Hollis Hwy	1995	near Milepost 4	0.2%	56.3%	38.0%	5.5%
P.O.W.	Hydaburg Hwy	1996	betwn 12 Mi. Arm Road & end	0.4%	47.1%	50.7%	1.8%
P.O.W.	Hydaburg Hwy	1996	betwn start and 12 Mi. Arm Road	0.8%	53.2%	42.0%	4.0%
P.O.W.	Hydaburg Hwy	1995	near Harris R. Bridge	0.5%	25.5%	37.7%	36.3%
P.O.W.	Klawock Airport Rd.	1993	Btw Big Salt Rd. & Airport	0.2%	38.2%	60.1%	1.5%
P.O.W.	N POW Hwy	1995	btw Big Salt & Coffman Cove Rds	0.0%	23.5%	38.3%	38.3%
P.O.W.	Thorne Bay Road	1998	betwn Big Salt Rd & Thorne Bay	1.6%	31.2%	45.1%	22.1%
P.O.W.	Thorne Bay Road	1991	Near Control Lake	1.3%	25.6%	45.5%	27.5%
Ptrbrg	Haugen (H St.) Dr.	1992	Btw 6th St. & Airport	0.1%	82.7%	15.4%	1.8%
Ptrbrg	Haugen Dr.	1996	betwn 12th St. & Airport	1.1%	65.4%	30.5%	3.0%
Ptrbrg	Mitkof Hwy.	1994	Btw Ferry Term & Scow Bay Rd	0.2%	66.5%	27.9%	5.4%
Ptrbrg	Mitkof Hwy.	2004	Btw Sing Lee Alley & Ferry Term	0.7%	60.0%	32.5%	6.8%
Ptrbrg	Mitkof Hwy.	1993	Btw Twin Creek & Falls Creek Br	0.3%	62.7%	33.7%	3.3%
Ptrbrg	Mitkof Hwy.	2004	Middleton - Harder Sts.	0.9%	64.5%	29.8%	4.7%
Ptrbrg	Mitkof Hwy.	1993	South of Papke's Landing Rd.	0.4%	68.7%	30.6%	0.3%
Sitka	Halibut Pt. Road	2003	betwn Granite Ck. & Harbor Mt Rd	0.3%	60.5%	31.2%	8.0%
Sitka	Halibut Pt. Road	2005	betwn Harbor Mt Rd & Cascade	0.3%	60.5%	28.8%	10.5%
Sitka	Halibut Pt. Road	1993	Cascade Creek Bridge	0.9%	74.4%	22.0%	2.7%
Sitka	Halibut Pt. Road	1993	Granite Creek Bridge	0.3%	68.2%	26.6%	5.0%
Sitka	Halibut Pt. Road	1994	Kruzoff St.	0.2%	73.0%	25.3%	1.5%
Sitka	Katlian Ave.	2003	betwn Thompson Hbr & Cold Stor.	1.1%	68.7%	25.2%	5.0%
Sitka	Katlian Ave.	1992	Cold Storage-Thompson Hbr.	0.1%	78.9%	18.7%	2.3%
Sitka	Lake St.	2004	Lake Street	1.1%	66.3%	28.6%	4.0%
Sitka	Rodman Bay Rd.	2002	At Starrigavan Creek Bridge	1.2%	69.4%	25.0%	4.4%
Sitka	Sawmill Ck. Road	2000	betwn Thimbleberry Ck & Mill	0.5%	73.1%	22.7%	3.6%
Sitka	Sawmill Ck. Road	1994	Jamestown Bay	0.2%	75.8%	22.7%	1.3%
Skagway	Dyea Road	2004	Btw Observation Pt & Taiya River Bridge	1.3%	54.5%	32.3%	11.9%
Skagway	Dyea Road	1994	Jct. Klondike	1.1%	58.4%	34.4%	6.2%
Skagway	Klondike Hwy	2005	betwn Dyea Rd. & Sanitarium Rd.	0.4%	40.7%	35.3%	23.7%
Skagway	Klondike Hwy	2005	betwn Sanitorium Rd. & U.S. Customs	1.3%	48.1%	25.3%	25.3%
Skagway	Klondike Hwy	2004	Btwn 22nd & Dyea Rd.	0.9%	46.7%	29.9%	22.4%
Skagway	Klondike Hwy.	1996	betwn Dyea Rd. & Sanitarium Rd.	2.5%	41.0%	31.0%	25.5%
Skagway	Klondike Hwy.	1996	betwn Sanitarium Rd & Border	0.8%	42.1%	31.8%	25.3%
Skagway	Klondike Hwy.	1995	near DOT M&O	1.5%	52.8%	34.8%	11.0%
Skagway	Klondike Hwy.	1991	North of Sanitorium Rd.	1.2%	39.0%	32.5%	27.2%
Wrangel	Airport Rd.	1998	betwn East Rd. & Airport	1.0%	60.8%	36.6%	1.6%
Wrangel	Wrg Airport Rd	1995	Wrg East Rd - Airport	0.6%	57.9%	37.0%	4.6%
Wrangel	Zimovia Hwy.	1991	At Milepost 3	0.2%	65.9%	29.4%	4.4%
Wrangel	Zimovia Hwy.	1993	At Wrangell Institute	0.3%	62.7%	31.5%	5.5%
Wrangel	Zimovia Hwy.	1995	Bennet - Case	1.5%	63.8%	31.7%	3.0%
Wrangel	Zimovia Hwy.	2002	betwn MP 2 and Wrangel Inst.	0.1%	63.2%	31.8%	5.0%
Wrangel	Zimovia Hwy.	1994	Btw Mile Post 7 & Pat's Cr Br	0.7%	45.8%	39.4%	14.1%
Wrangel	Zimovia Hwy.	2003	btw Wrangell Institute & Shoemaker Rd.	0.0%	64.3%	29.7%	5.9%
Yakutat	Yakutat Airport Road.	1995	near Ophir Cr Bridge	0.8%	50.1%	48.0%	0.6%

IV. TRAFFIC VOLUME SECTION

A. Historical Population Growth Rates

This section shows historic population growth rates. The table shown includes population estimates from 1980 through 2004 that were calculated by the Alaska Department of Labor, Research and Analysis Section, Demographics Unit.

One of the most important factors in planning future road systems is determining the annual rate of traffic volume, or ADT, growth. Although historical population growth does not necessarily predict future trips, it is a simple indicator of the combined effect of the many complex state, local, societal, and economic factors which impact traffic volume growth. It is important to note that there is no direct relationship between population changes and traffic volume changes. Even so, population change is an important indicator of changing traffic volumes. Where no actual traffic counts have been done it is often the only means of projecting future traffic volumes. Where counts have been done it helps to verify volumes which might otherwise be in question.

Table 11 contains some known weaknesses. Several of the smaller cities had data holes. Also there are several years with missing data (1981, 1987, & 1989). For those years we performed a straight-line interpolation. For the most recent years (1991-2004), however, the data is complete. The table gives a good overview of long term trends of these southeast communities.

Southeast Region Population Estimates

Area Name						%*	
	2000	2001	2002	2003	2004	Change	
Haines Borough	2,392	2,368	2,357	2,319	2245	-1.6%	
Juneau/ City and Borough	30,711	30,371	30,899	31,246	30966	0.2%	
Ketchikan Gateway Borough	14,059	13,742	13,676	13,533	13030	-1.9%	
Prince of Wales Borough	6,157	5,814	5,680	5,594	5548	-2.6%	
Sitka City/Borough	8,835	8,724	8,799	8,897	8805	-0.1%	
City Name	2000	2001	2002	2003	2004	Change	
Angoon	572	559	544	507	481	-4.2%	
Gustavus	429	418	421	438	473	2.5%	
Hoonah	860	875	877	850	841	-0.6%	
Kake	710	697	701	683	663	-1.7%	
Metlakatla	1,447	1,416	1,418	1,397	1302	-2.6%	
Petersburg	3,224	3,218	3,148	3,079	3123	-0.8%	
Skagway	862	837	843	844	870	0.2%	
Wrangell	2,308	2,220	2,175	2,123	2023	-3.2%	
Yakutat	680	641	664	635	619	-2.3%	

Area Name										%**	
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Change
Haines Borough	2117	2,242	2,230	2,293	2,331	2,280	2,352	2,404	2,461	2,475	1.2%
Juneau/ City and Borough	26751	27,579	28,253	28,448	28,454	28,700	29,230	29,713	30,021	30,189	1.4%
Ketchikan Gateway Borough	13828	14,255	14,636	14,716	14,751	14,764	14,654	14,500	14,143	13,961	0.2%
Prince of Wales Borough	6278	6,551	6,608	6,797	6,774	6,734	6,996	6,873	6,830	6,589	-0.2%
Sitka City/Borough	8588	8,878	9,059	9,083	8,941	8,868	8,650	8,708	8,722	8,681	0.3%
City Name	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Change
Angoon	638	665	636	636	610	601	605	570	586	576	-1.1%
Gustavus	258	256	279	288	314	319	344	340	371	377	5.2%
Hoonah	795	796	843	871	885	877	902	890	892	877	0.8%
Kake	700	711	727	725	695	703	727	756	775	745	0.1%
Metlakatla	1,407	1,489	1,531	1,518	1,520	1,522	1,563	1,523	1,502	1,472	0.3%
Petersburg	3,207	3,282	3,314	3,307	3,261	3,310	3,388	3,410	3,399	3,415	0.1%
Skagway	692	726	758	786	798	775	778	815	811	825	2.2%
Wrangell	2,479	2,590	2,716	2,691	2,754	2,698	2,618	2,541	2,560	2,549	-0.7%
Yakutat	705	722	680	707	727	770	799	822	775	729	-0.4%

Area Name										%***	
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Change
Haines Borough	1680	1803	1886	1950	2051	2034	2036	1971	1956	2058	2.3%
Juneau/ City and Borough	19528	21329	22451	24007	25268	26037	25998	24966	24655	25100	3.2%
Ketchikan Gateway Borough	11316	12042	12268	12459	12438	12623	12729	12793	12594	13259	2.0%
Prince of Wales Borough	3822	4204	4439	4822	4993	5143	5225	5392	5770	5876	5.1%
Sitka City/Borough	7803	8116	7947	8028	7956	8110	8128	8252	8294	8283	1.0%
City Name	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Change
Angoon	465	514	562	512	574	588	597	605	624	645	3.2%
Gustavus	98	128	158	188	218	217	214	211	219	238	10.2%
Hoonah	680	772	864	865	894	917	906	895	894	845	1.6%
Kake	555	593	631	674	635	634	650	665	678	695	2.3%
Metlakatla	1,056	1,098	1,141	1,183	1,225	1,270	1,318	1,365	1,386	1,438	2.9%
Petersburg	2,821	2,931	3,040	3,046	3,112	3,145	3,182	3,180	3,178	3,230	1.3%
Skagway	814	802	790	782	652	610	662	714	704	715	-1.6%
Wrangell	2,184	2,280	2,376	2,468	2,336	2,387	2,402	2,409	2,416	2,503	1.3%
Yakutat	449	456	462	469	470	456	466	476	527	625	4.6%

* Compounded rate of growth 2000-2004

** Compounded rate of growth 1990-2000

*** Compounded rate of growth 1980-1990

B. Permanent Traffic Recorder Data

Permanent Traffic Recorders (PTRs) consist of electronic counting devices connected to inductive loops buried in the roadway. As vehicles pass over the loops, a cumulative total is compiled for selected periods of time and reported to a mainframe database for analysis. PTRs are installed to collect the number of vehicles that travel over a particular road classification. PTRs are located on select roadways that are representative for a community. There are twelve PTRs in the region, and the oldest one has been in operation since 1959. The twelve PTRs and their locations is as follows:

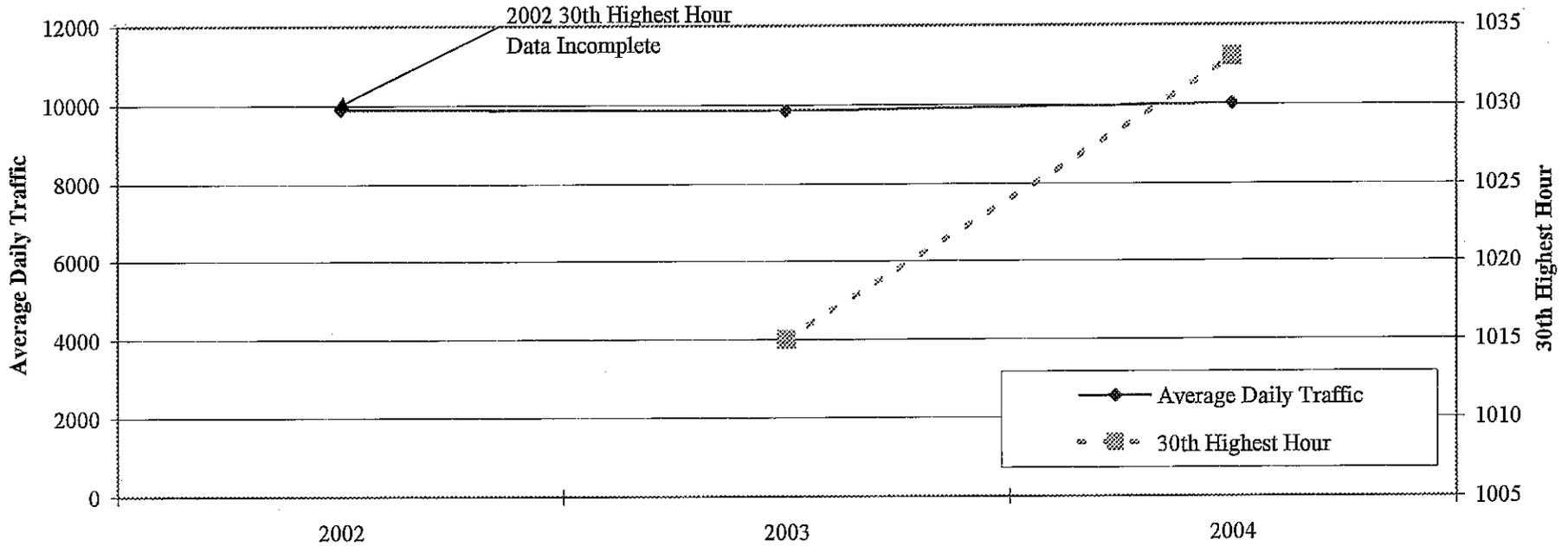
1. Ketchikan – North Tongass Highway (CDS Mile Pt 1.33)
2. Ketchikan – South Tongass Highway (CDS Mile Pt. 3.07)
3. Sitka – Sawmill Creek Road (CDS Mile Pt. 0.73)
4. Sitka – Halibut Point Road (CDS Mile Pt. 0.53)
5. Prince of Wales – Craig / Klawock / Hollis Highway (CDS Mile Pt. 6.71)
6. Wrangell – Zimovia Highway (CDS Mile Pt. 0.71)
7. Petersburg – Mitkof Highway (CDS Mile Pt. 2.55)
8. Juneau – Egan Drive (CDS Mile Pt. 2.58)
9. Juneau – Riverside Drive (CDS Mile Pt. 1.47)
10. Juneau – Glacier Highway (CDS Mile Pt. 14.07)
11. Haines – Haines Highway (CDS Mile Pt. 1.29)
12. Skagway – Klondike Highway (CDS Mile Pt. 2.55)

PTR data is presented in several different ways. The graphs depict annual average daily traffic (AADT) and 30th highest hour volumes for each year the PTRs have been in operation as well as AADT for each day of the week, and the annual average hourly traffic for weekdays (weekends and holidays excluded) for 2004. The numerical matrices provide the most detailed and comprehensive data.

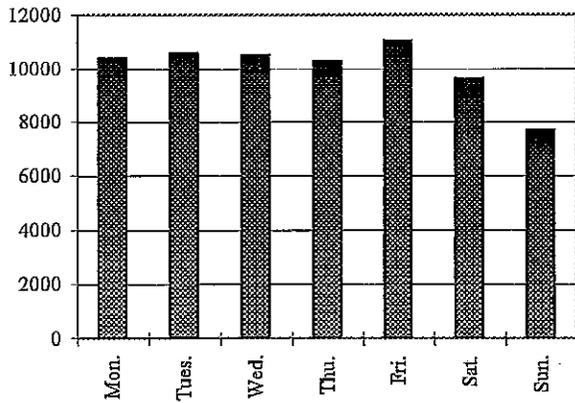
The 30th highest hour volumes, also called the Design Hourly Volume (DHV), are shown because highway projects are usually designed to accommodate this volume in the design year.

PTR data is very important to traffic engineers because they record hourly traffic volumes in both directions 24 hours per day, 365 days per year. Unlike rubber road tube counts, the PTRs collect traffic volumes year round and show seasonally adjusted traffic volumes. These seasonal factors can then be used to adjust other traffic volume counts taken by road tubes.

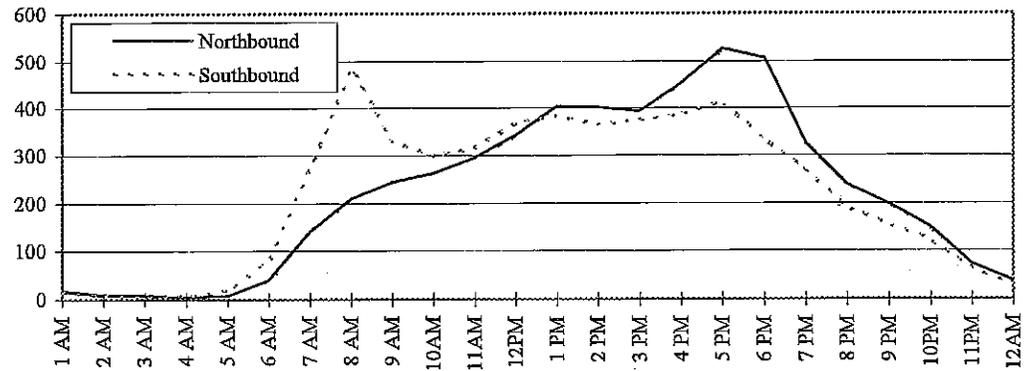
Permanent Traffic Recorder At N. Tongass Hwy (CDS Mi 1.33)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60087100 9

NORTH TONGASS PTR @ ROSES CABOOSE TOTAL												AT MILEPOINT	1.334	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN	HISTORICAL DATA	
JAN	8175	81.6	95.6	4.4	110.7	109.5	103.7	93.0	107.5	104.9	97.7	77.8	2004	10018
FEB	9006	89.9	96.0	4.0	101.1	102.4	103.7	103.8	111.9	104.6	101.3	75.8	2003	9847
MAR	9412	94.0	96.2	3.8	103.7	103.0	102.3	102.2	112.6	104.8	100.2	75.9	2002	9883
APR	10349	103.3	96.3	3.7	106.8	108.8	107.9	102.0	109.8	107.1	91.9	72.8		
MAY	11067	110.5	95.6	4.4	97.9	104.9	104.3	105.9	113.6	105.3	96.4	76.9		
JUN	11413	113.9	94.6	5.4	104.7	105.8	104.6	105.2	107.7	105.6	93.4	78.5		
JUL	11123	111.0	94.2	5.8	98.9	106.3	103.0	106.9	110.2	105.1	97.4	77.3		
AUG	11150	111.3	94.8	5.2	104.5	104.5	105.1	102.3	107.9	104.9	95.0	80.7		
SEP	10320	103.0	95.9	4.1	97.3	106.4	105.7	106.8	109.1	105.1	97.9	76.9		
OCT	9706	96.9	96.1	3.9	104.7	103.1	104.3	104.1	111.9	105.6	97.5	74.3		
NOV	9097	90.8	95.9	4.1	107.2	108.4	109.2	91.5	113.5	106.0	95.3	74.9		
DEC	9396	93.8	95.7	4.3	106.9	106.5	105.6	107.2	107.4	106.7	86.4	80.0		
ANN	10018		95.6	4.4	103.7	105.8	105.0	102.6	110.3	105.5	95.9	76.8		

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
13325	13149	12654	12583	12566	12508	12484	12453	12413	12372	12651
06/18	05/21	07/02	08/13	06/17	05/28	06/21	06/22	05/07	07/16	
133.0	131.3	126.3	125.6	125.4	124.9	124.6	124.3	123.9	123.5	126.3

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
1124	1108	1099	1094	1091	1083	1079	1074	1072	1072	1045	1033	1025	1021	1090
17	17	17	17	17	17	17	17	17	17	17	17	16	17	
09/01	09/14	10/01	05/07	06/21	04/20	06/18	06/24	09/08	04/05	08/30	10/25	07/02	09/02	
11.2	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.7	10.7	10.4	10.3	10.2	10.2	10.9

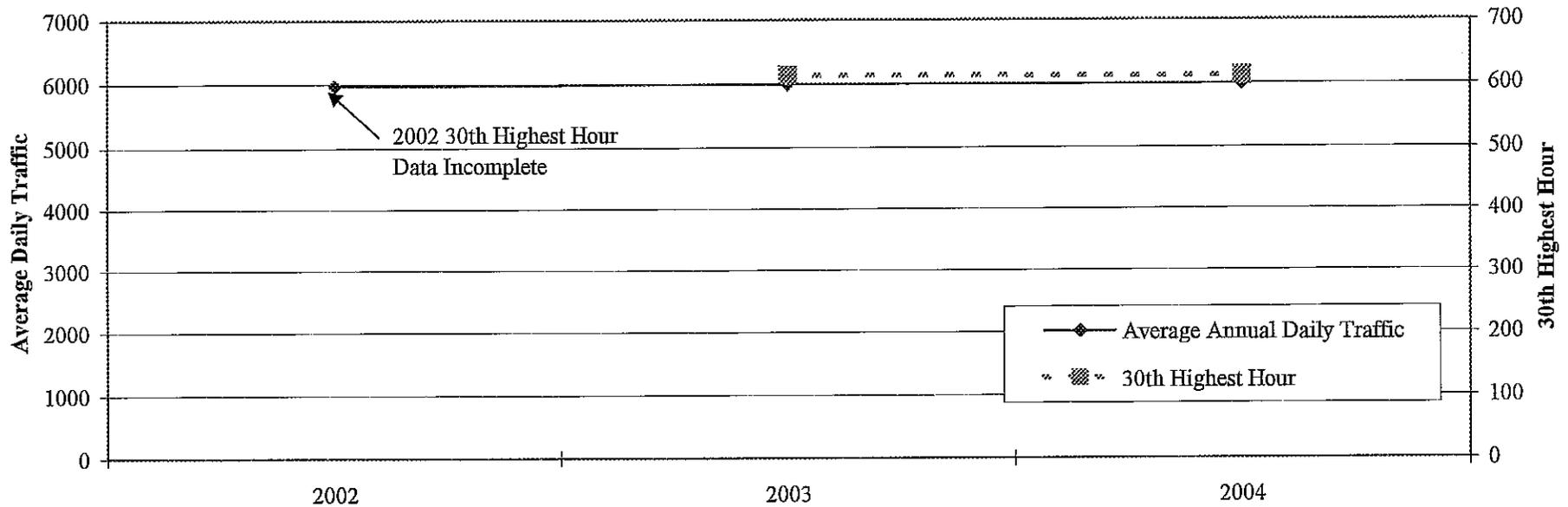
AM

PERCENT BY HOUR

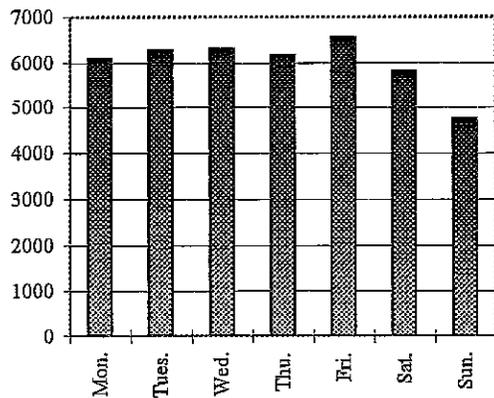
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.4	0.2	0.2	0.2	0.3	1.1	3.4	5.6	5.1	5.5	6.1	7.0	7.9	7.7	7.6	8.0	8.5	7.6	5.5	4.1	3.3	2.6	1.4	0.7

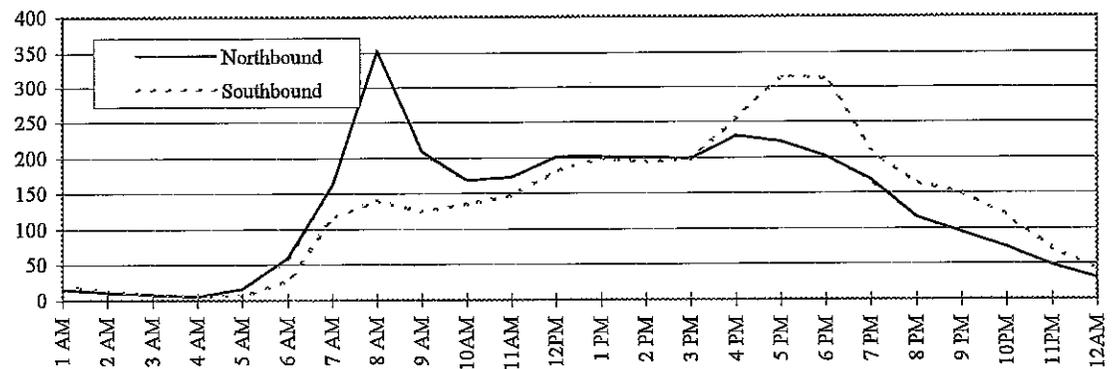
Permanent Traffic Recorder At South Tongass Hwy (CDS Mi 3.07)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60025100 9

SOUTH TONGASS @ CEMETERY ROAD TO USCG BASE - TOTAL PTR ON 291400													AT MILEPOINT	3.070	HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN				
JAN	5213	87.0	92.9	7.1	106.9	109.3	102.1	93.6	109.3	104.2	99.8	78.8	2004	5992		
FEB	5487	91.6	93.8	6.2	100.2	103.7	105.1	103.5	109.8	104.5	98.9	78.8	2003	5985		
MAR	5760	96.1	94.1	5.9	101.6	102.8	104.4	103.9	112.8	105.1	98.5	76.0	2002	5968		
APR	6088	101.6	94.2	5.8	103.2	107.2	109.4	102.1	107.7	105.9	93.1	77.2				
MAY	6700	111.8	93.1	6.9	95.6	103.2	105.1	106.4	114.4	104.9	96.1	79.2				
JUN	6928	115.6	91.8	8.2	102.2	104.2	105.8	106.9	104.4	104.7	94.7	81.7				
JUL	6752	112.7	91.7	8.3	96.4	104.9	104.3	107.3	108.7	104.3	96.5	81.8				
AUG	6681	111.5	92.4	7.6	102.9	103.0	103.5	103.8	106.9	104.0	96.6	83.1				
SEP	6143	102.5	93.7	6.3	98.0	104.1	104.2	104.6	107.9	103.8	100.6	80.6				
OCT	5497	91.7	93.6	6.4	101.1	103.9	105.3	102.0	110.5	104.6	99.2	78.0				
NOV	5292	88.3	93.7	6.3	105.4	106.7	108.7	94.6	110.1	105.1	97.0	77.7				
DEC	5362	89.5	92.9	7.1	103.5	104.1	104.0	106.0	110.0	105.5	92.1	80.2				
ANN	5992		93.2	6.8	101.4	104.8	105.2	102.9	109.4	104.7	96.9	79.4				

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
7994	7856	7846	7769	7626	7605	7569	7521	7437	7426	7665
05/21	06/18	06/17	07/02	05/28	05/14	06/16	06/03	05/07	05/20	
133.4	131.1	130.9	129.7	127.3	126.9	126.3	125.5	124.1	123.9	127.9

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
672	659	649	649	646	636	636	634	634	634	619	612	604	597	645
17	18	18	17	18	17	18	18	17	16	18	17	17	17	
05/21	05/20	06/17	05/20	05/07	08/05	05/27	07/15	06/23	05/21	07/29	06/10	06/30	06/21	
11.2	11.0	10.8	10.8	10.8	10.6	10.6	10.6	10.6	10.6	10.3	10.2	10.1	10.0	10.8

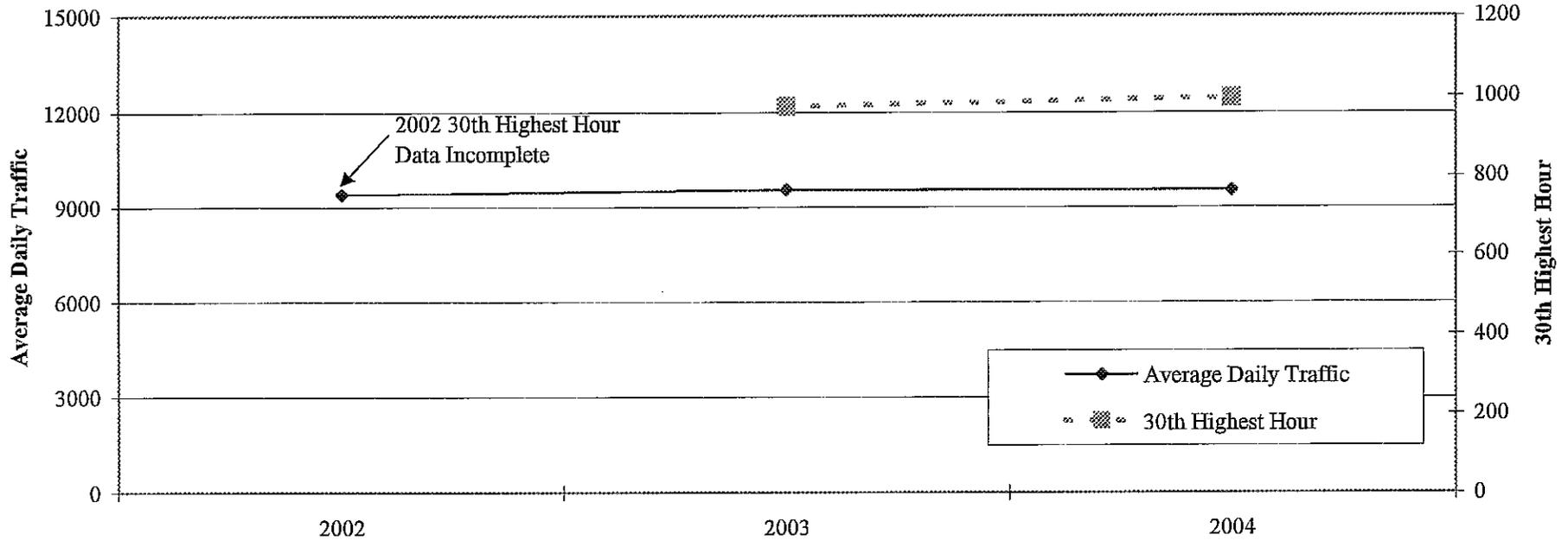
AM

PERCENT BY HOUR

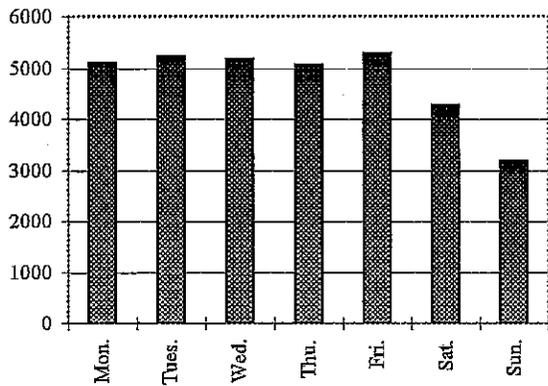
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.8	0.6	0.4	0.3	0.4	1.2	3.7	6.6	5.1	5.1	5.4	6.2	6.7	6.6	6.6	7.6	8.2	7.8	6.0	4.5	3.9	3.2	2.0	1.3

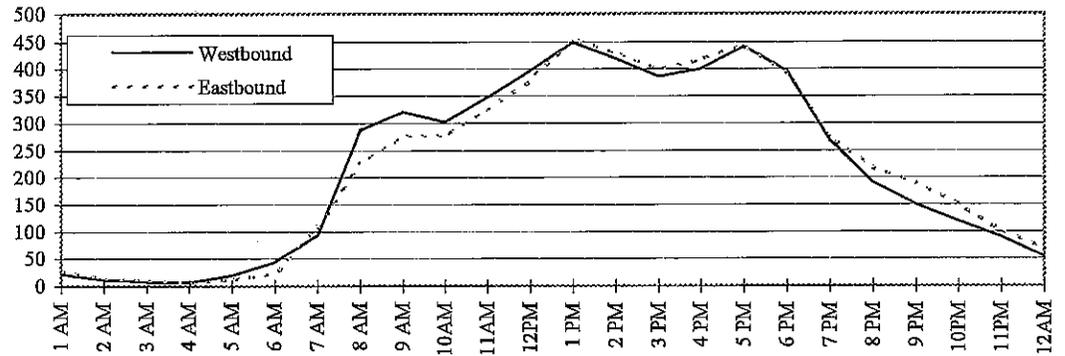
Permanent Traffic Recorder At Sawmill Creek Rd (CDS Mi 0.73)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004

RECORDER NUMBER 60053100 0

SAWMILL CREEK RD @ INDIAN RIVER BRIDGE PTR - TOTAL SI ON 295500													AT MILEPOINT	0.730		HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN					
JAN	8491	89.1	94.2	5.8	109.5	113.6	111.0	99.2	112.2	109.1	88.8	65.7					
FEB	9139	95.9	95.0	5.0	106.1	109.8	107.6	108.9	112.8	109.0	89.2	65.5					
MAR	9518	99.9	95.0	5.0	108.1	106.1	105.2	107.4	112.7	107.9	93.8	66.6					
APR	10102	106.1	94.7	5.3	108.7	108.6	108.6	106.5	109.3	108.3	92.2	66.0					
MAY	10501	110.2	93.8	6.2	100.7	108.8	109.6	110.1	112.9	108.4	90.5	67.5					
JUN	10597	111.3	93.2	6.8	109.4	109.5	107.3	108.0	107.9	108.4	88.8	69.1					
JUL	9973	104.7	92.7	7.3	102.8	108.8	109.3	109.8	110.9	108.3	88.6	69.9					
AUG	9986	104.8	93.5	6.5	111.7	108.9	107.4	106.5	109.0	108.7	88.0	68.5					
SEP	9511	99.9	94.6	5.4	99.2	111.1	108.8	108.2	112.7	108.0	93.7	66.4					
OCT	9196	96.5	94.4	5.6	104.4	109.8	107.8	106.2	112.2	108.1	93.1	66.4					
NOV	8628	90.6	94.5	5.5	113.9	114.1	111.2	94.5	111.1	109.0	90.0	65.2					
DEC	8663	91.0	94.0	6.0	110.7	109.4	112.3	112.1	109.2	110.7	81.4	64.9					
ANN	9525		94.1	5.9	107.1	109.9	108.8	106.5	111.1	108.7	89.8	66.8					

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
12431	12276	11966	11860	11859	11776	11761	11756	11688	11675	11905
06/01	05/28	05/27	05/14	05/21	04/30	06/21	06/07	05/17	05/19	
130.5	128.9	125.6	124.5	124.5	123.6	123.5	123.4	122.7	122.6	125.0

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
1051	1040	1033	1030	1029	1022	1020	1019	1016	1011	1005	996	990	985	1027
17	13	13	13	13	17	17	13	13	17	13	13	13	13	
05/19	04/14	05/17	06/07	06/01	06/01	05/17	12/17	05/28	05/24	04/16	06/21	04/19	03/16	
11.0	10.9	10.8	10.8	10.8	10.7	10.7	10.7	10.7	10.6	10.6	10.5	10.4	10.3	10.8

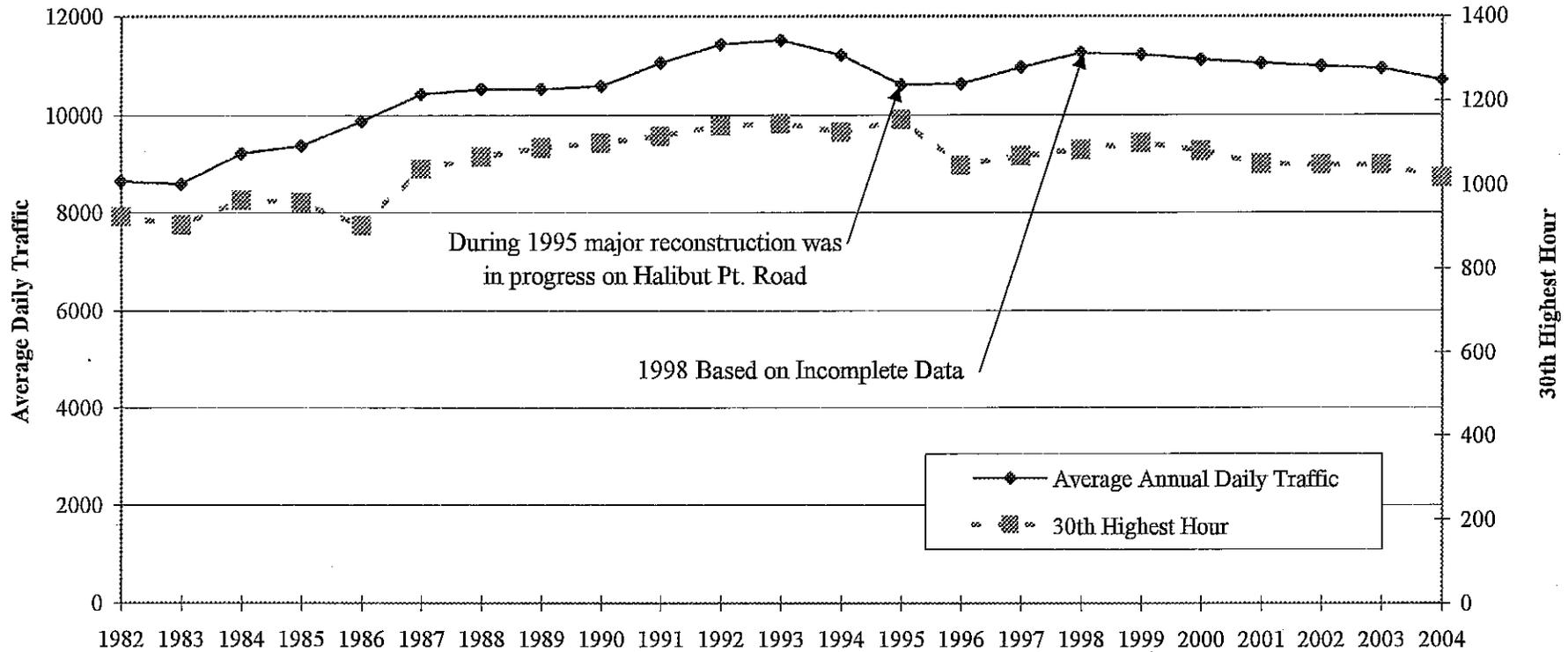
AM

PERCENT BY HOUR

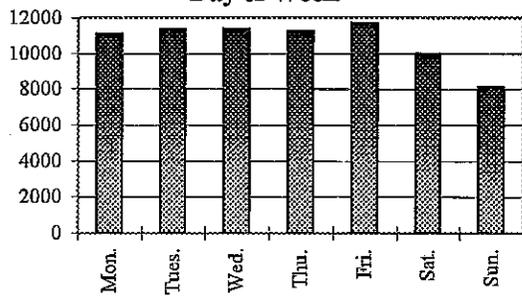
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.7	0.4	0.3	0.2	0.3	0.6	1.7	4.3	5.2	5.5	6.5	7.4	8.7	8.3	7.7	7.9	8.2	7.3	5.3	4.0	3.4	2.7	2.0	1.3

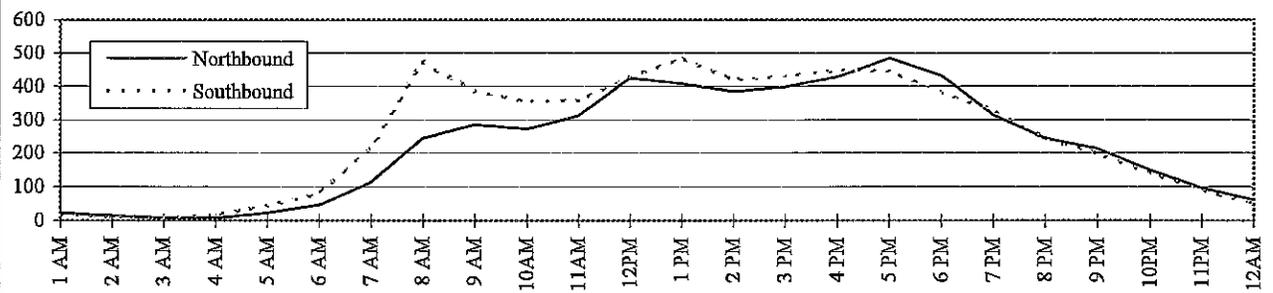
Permanent Traffic Recorder At 1 Mi. Halibut Pt. Road (CDS MP 0.53)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004

RECORDER NUMBER 60561000 9

0

HALIBUT PT RD BTW KATLIAN & MARINE ST, SITKA		ON 295400											AT MILEPOINT	0.533	HISTORICAL DATA
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN			
JAN	9380	87.7	94.4	5.6	106.7	108.6	108.9	98.9	108.9	106.4	92.7	75.3			2004 10700
FEB	10119	94.6	94.9	5.1	103.9	107.2	103.9	107.2	110.3	106.5	93.5	74.1			2003 10933
MAR	10568	98.8	94.6	5.4	103.7	103.6	103.7	107.1	110.4	105.7	96.2	75.4			2002 10977
APR	11062	103.4	95.0	5.0	105.6	104.4	105.8	105.6	106.8	105.6	96.9	74.7			2001 11029
MAY	11799	110.3	94.3	5.7	99.3	105.9	106.0	108.3	112.1	106.3	93.4	74.9			2000 11103
JUN	11880	111.0	93.2	6.8	107.7	101.8	105.4	106.6	107.2	105.7	93.0	78.3			1999 11205
JUL	11471	107.2	93.1	6.9	100.1	105.6	106.5	107.1	107.4	105.3	93.5	79.7			1998 11241
AUG	11487	107.4	93.6	6.4	106.4	105.5	106.3	102.0	107.4	105.5	93.8	78.7			1997 10946
SEP	10855	101.4	94.8	5.2	97.8	107.8	105.7	105.9	111.2	105.7	96.6	75.0			1996 10629
OCT	10400	97.2	94.7	5.3	102.6	106.0	105.6	105.9	110.1	106.0	95.6	74.1			1995 10599
NOV	9743	91.1	94.5	5.5	108.3	110.7	111.0	94.7	108.6	106.7	92.9	73.7			1994 11200
DEC	9638	90.1	94.2	5.8	104.8	106.1	109.0	110.7	110.7	108.3	83.7	75.0			1993 11502
ANN	10700		94.3	5.7	103.9	106.1	106.5	105.0	109.3	106.1	93.5	75.7			1992 11418

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
13613	13308	13273	13255	13224	13105	13088	13065	13042	12980	13195
05/28	06/21	06/18	06/17	05/21	05/14	06/25	05/27	06/28	05/07	
127.2	124.4	124.0	123.9	123.6	122.5	122.3	122.1	121.9	121.3	123.3

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
1106	1104	1074	1073	1061	1054	1053	1052	1048	1045	1032	1018	1012	1005	1067
17	13	17	17	17	17	17	17	17	17	13	17	17	17	
06/17	05/28	04/29	06/21	05/27	05/06	07/21	06/22	04/30	05/13	06/21	05/19	08/31	05/28	
10.3	10.3	10.0	10.0	9.9	9.9	9.8	9.8	9.8	9.8	9.6	9.5	9.5	9.4	10.0

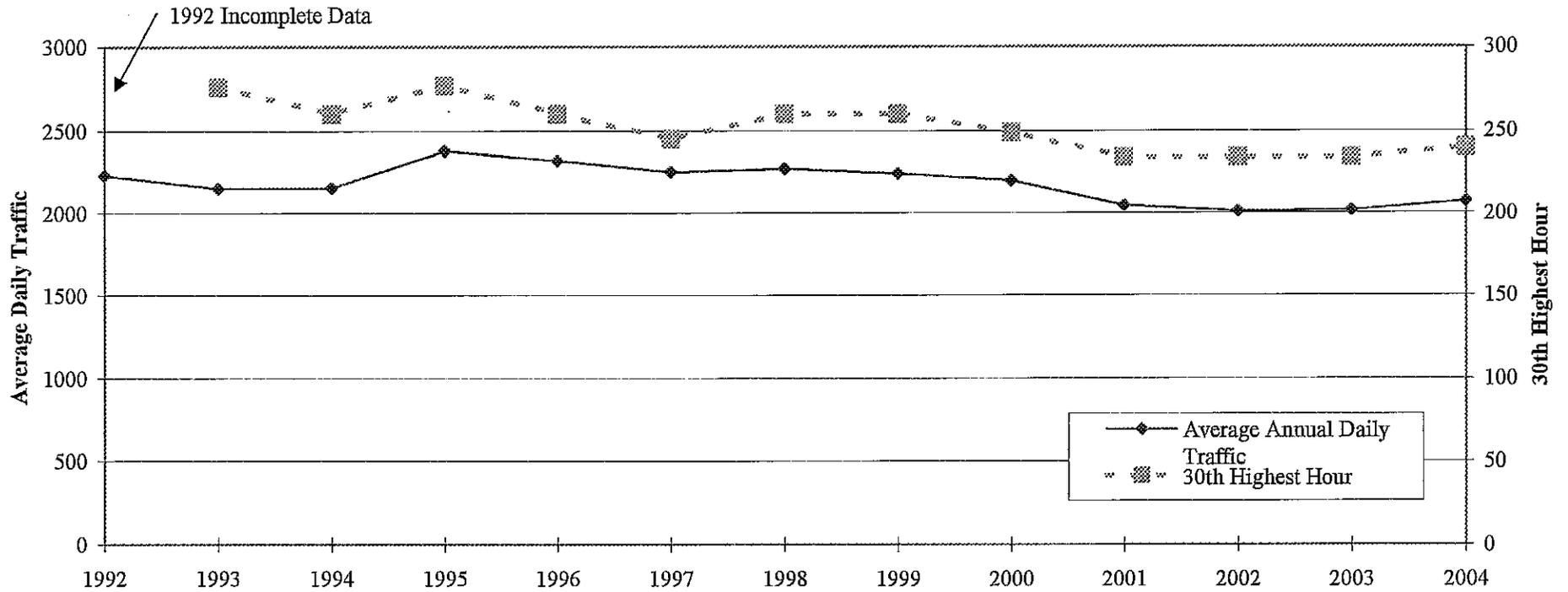
AM

PERCENT BY HOUR

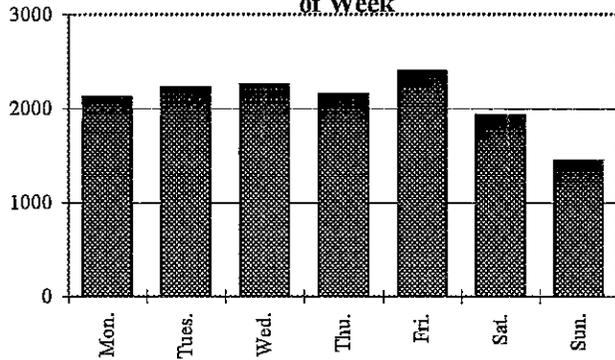
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.5	0.3	0.2	0.3	0.6	1.0	2.6	5.4	5.5	5.7	6.1	7.5	8.0	7.3	7.4	7.7	7.9	7.0	5.6	4.3	3.6	2.6	1.8	1.1

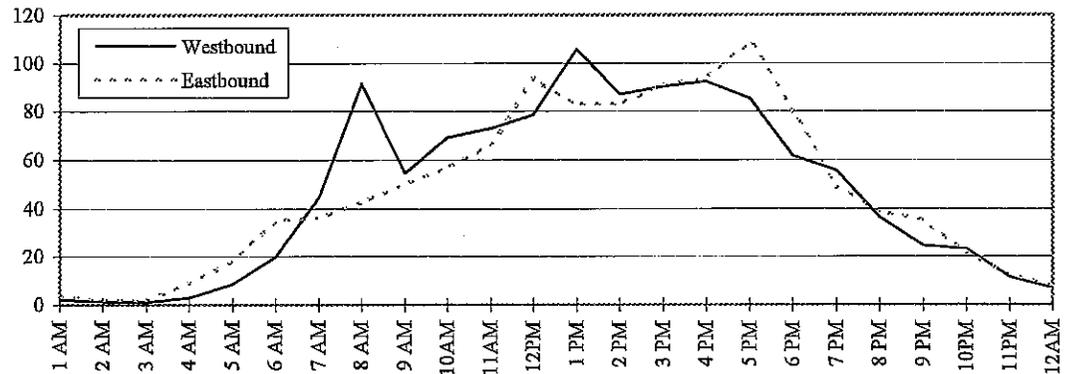
Permanent Traffic Recorder At Craig/Klawock/Hollis Hwy (CDS Mi 6.71)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60148000 0

CRAIG/KLAWOCK/HOLLIS BTW KLAWOCK R. BR. & BAYVIEW, KLAW ON 292000													AT MILEPOINT	6.709	HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN				
JAN	1601	77.2	94.5	5.5	105.8	115.8	105.6	92.8	116.7	107.3	93.8	69.5			2004	2073
FEB	1826	88.1	94.5	5.5	96.3	105.3	105.1	107.7	120.8	107.0	98.0	66.7			2003	2017
MAR	1950	94.1	93.6	6.4	106.0	107.4	108.7	104.4	115.0	108.3	93.0	65.3			2002	2012
APR	2082	100.4	93.5	6.5	101.2	106.7	107.9	102.1	113.3	106.2	97.6	71.1			2001	2047
MAY	2215	106.8	92.1	7.9	95.7	104.1	104.6	107.8	119.1	106.3	97.8	71.1			2000	2199
JUN	2325	112.2	91.2	8.8	105.3	105.6	108.8	104.4	112.8	107.4	92.1	70.8			1999	2241
JUL	2512	121.2	91.1	8.9	98.0	107.6	108.1	104.5	113.8	106.4	91.4	76.5			1998	2273
AUG	2394	115.5	92.2	7.8	105.0	105.8	108.0	103.8	112.9	107.1	92.3	72.2			1997	2253
SEP	2235	107.8	93.2	6.8	92.6	103.1	108.3	107.9	118.0	106.0	99.4	70.7			1996	2320
OCT	2110	101.8	94.1	5.9	106.1	106.8	108.8	105.3	115.7	108.5	93.0	64.4			1995	2380
NOV	1905	91.9	94.0	6.0	108.1	107.8	114.9	91.9	117.7	108.1	91.4	68.3			1994	2157
DEC	1717	82.8	94.5	5.5	104.4	107.9	115.6	113.4	112.9	110.8	78.7	67.1			1993	2152
ANN	2073		93.2	6.8	102.0	107.0	108.7	103.8	115.7	107.5	93.2	69.5				

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
2933	2905	2902	2838	2818	2811	2790	2777	2773	2764	2831
07/02	07/16	07/09	07/07	05/28	07/30	09/10	08/13	07/21	07/13	
141.5	140.1	140.0	136.9	135.9	135.6	134.6	134.0	133.8	133.3	136.6

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
275	274	271	268	267	264	262	259	259	257	244	240	237	234	266
17	12	12	17	16	17	13	15	17	15	13	13	17	15	
09/10	05/29	07/12	09/08	07/07	07/07	07/16	07/09	07/16	09/10	07/13	07/21	08/02	07/16	
13.3	13.2	13.1	12.9	12.9	12.7	12.6	12.5	12.5	12.4	11.8	11.6	11.4	11.3	12.8

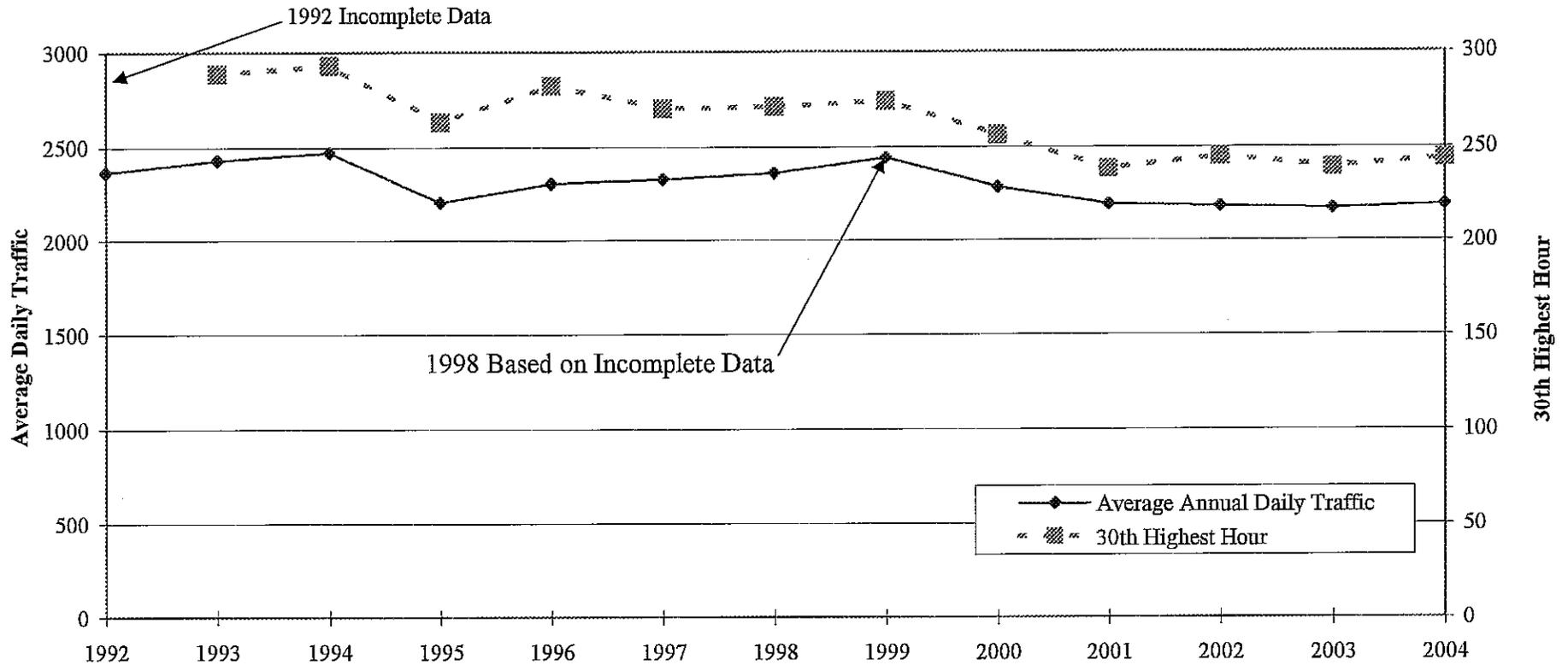
AM

PERCENT BY HOUR

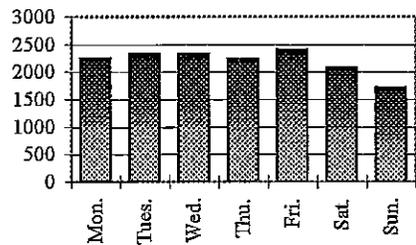
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.4	0.3	0.3	0.6	1.1	2.3	3.3	5.2	4.5	5.7	6.2	7.7	8.5	7.8	8.2	8.2	8.2	6.2	4.8	3.5	2.8	2.2	1.2	0.8

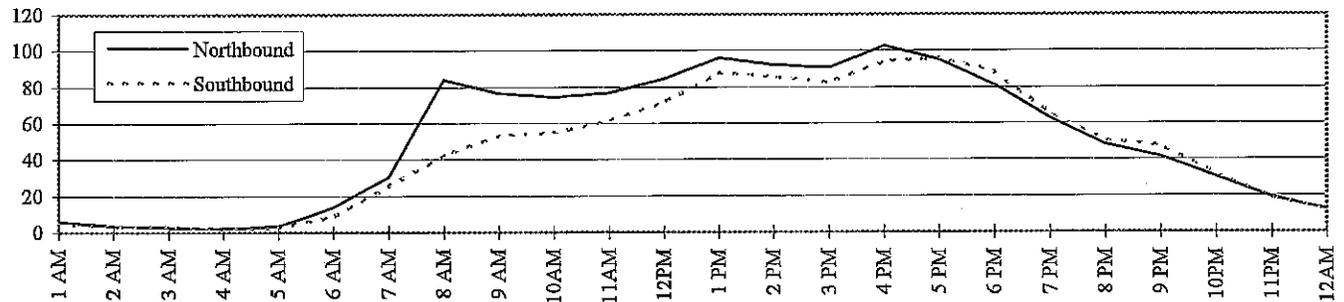
Permanent Traffic Recorder At Zimovia Hwy (CDS Mi 0.71)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60169159 9

WRANGELL PTR: ZIMOVIA HWY BTW BENNET & CASE WRANGELL ON 293300												AT MILEPOINT 0.707		HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN			
JAN	1751	80.0	95.3	4.7	106.6	111.8	108.2	97.8	109.2	106.7	94.4	71.9	2004	2190	
FEB	1883	86.0	95.8	4.2	96.5	105.7	103.7	104.7	112.4	104.6	99.4	77.5	2003	2170	
MAR	2051	93.7	95.6	4.4	104.5	106.3	107.1	100.0	110.5	105.7	94.8	76.7	2002	2182	
APR	2282	104.2	95.4	4.6	103.9	106.5	107.3	103.3	107.3	105.7	94.8	76.7	2001	2194	
MAY	2499	114.1	94.4	5.6	97.4	105.7	106.0	106.0	113.8	105.8	93.3	77.9	2000	2283	
JUN	2683	122.5	93.0	7.0	105.3	102.1	104.8	105.0	106.7	104.8	95.2	80.7	1999	2439	
JUL	2504	114.3	92.2	7.8	98.7	103.4	101.9	106.1	110.9	104.2	96.6	82.5	1998	2359	
AUG	2403	109.7	93.6	6.4	104.4	103.3	104.7	102.5	108.5	104.7	94.0	82.5	1997	2326	
SEP	2191	100.0	94.8	5.2	95.3	105.9	105.9	104.6	117.1	105.8	95.7	75.2	1996	2306	
OCT	2110	96.3	95.0	5.0	106.4	106.5	109.1	100.6	108.3	106.2	92.6	76.4	1995	2204	
NOV	1949	89.0	94.5	5.5	108.6	110.9	110.3	88.6	103.6	104.4	97.8	80.1	1994	2468	
DEC	1968	89.9	93.6	6.4	104.6	107.5	107.4	107.4	108.6	107.1	86.5	78.2	1993	2428	
ANN	2190		94.4	5.6	102.7	106.3	106.4	102.2	109.7	105.5	94.6	78.0			

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
3147	3094	3091	3089	2939	2918	2911	2904	2851	2848	2979
07/02	06/10	06/18	06/07	05/21	06/25	06/16	07/01	05/28	05/05	
143.7	141.3	141.1	141.1	134.2	133.2	132.9	132.6	130.2	130.0	136.0

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
337	335	280	273	267	267	262	261	259	258	250	244	241	236	280
16	17	17	17	16	15	17	13	16	17	17	13	17	16	
06/10	06/10	05/10	06/18	06/18	06/10	06/07	03/26	05/04	05/19	05/07	06/03	07/02	03/24	
15.4	15.3	12.8	12.5	12.2	12.2	12.0	11.9	11.8	11.8	11.4	11.1	11.0	10.8	12.8

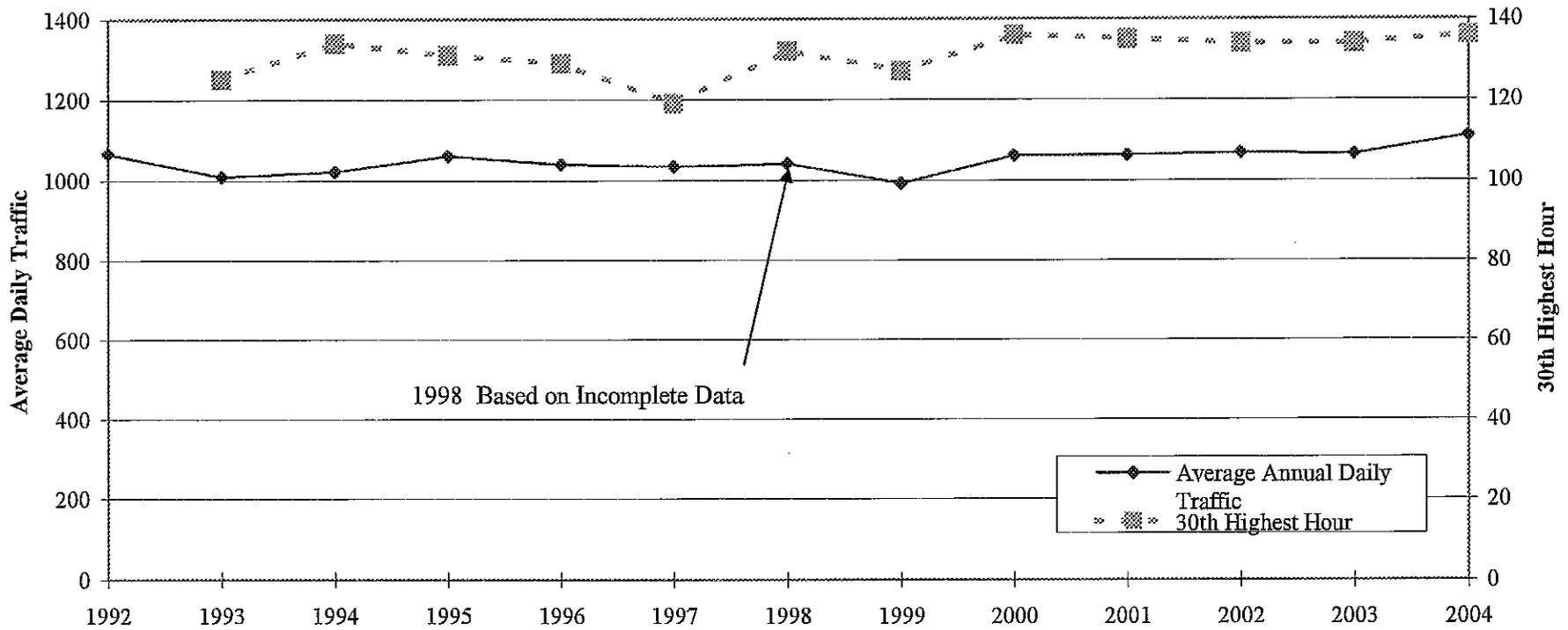
AM

PERCENT BY HOUR

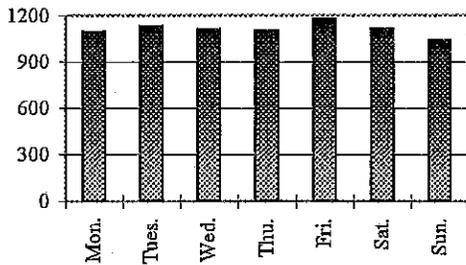
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.6	0.4	0.3	0.2	0.3	0.9	2.1	4.7	5.2	5.7	6.2	6.9	8.2	7.9	7.6	8.3	8.0	7.1	5.5	4.3	3.9	2.8	1.8	1.2

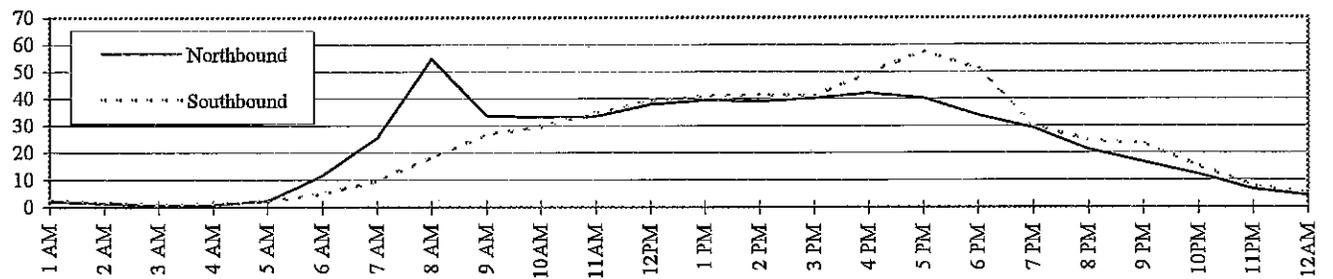
Permanent Traffic Recorder At Mitkof Hwy (CDS Mi 2.55)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60202000 9

MITKOF HWY, S JCT SCOW BAY LOOP - USFS WAREHOUSE, PETER ON 294000													AT MILEPOINT 2.550	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN	HISTORICAL DATA	
JAN	755	68.0	95.7	4.3	107.2	101.9	98.9	93.8	106.9	101.7	100.4	91.1	2004	1111
FEB	838	75.4	95.4	4.6	97.2	102.0	98.0	96.2	108.4	100.4	101.1	96.4	2003	1066
MAR	957	86.1	95.5	4.5	98.6	101.5	97.2	96.2	107.3	100.2	107.5	91.9	2002	1069
APR	1162	104.6	95.7	4.3	102.6	99.6	102.7	101.0	102.9	101.8	96.1	95.4	2001	1063
MAY	1328	119.5	95.0	5.0	91.2	103.4	102.8	103.2	108.3	101.8	98.3	92.6	2000	1062
JUN	1522	137.0	93.7	6.3	100.8	99.7	100.4	105.3	106.1	102.5	96.7	91.3	1999	992
JUL	1308	117.7	93.3	6.7	93.9	100.2	100.6	107.6	105.3	101.5	101.2	91.4	1998	1042
AUG	1338	120.4	94.1	5.9	102.3	106.6	100.2	95.7	102.4	101.4	98.7	93.8	1997	1035
SEP	1192	107.3	94.5	5.5	92.9	101.6	99.6	100.2	106.0	100.1	104.7	94.8	1996	1040
OCT	1076	96.8	95.2	4.8	99.4	98.6	97.2	98.6	105.8	99.9	105.2	95.1	1995	1062
NOV	931	83.8	94.8	5.2	99.2	104.1	105.4	95.8	105.8	102.1	98.3	91.5	1994	1021
DEC	930	83.7	93.9	6.1	98.8	103.5	100.5	97.2	105.7	101.1	97.0	96.9	1993	1009
ANN	1111		94.7	5.3	98.7	101.9	100.3	99.2	105.9	101.2	100.4	93.5		

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
1690	1672	1656	1639	1638	1619	1602	1597	1592	1592	1630
06/03	06/18	07/01	06/17	05/21	06/23	06/25	06/22	06/04	06/11	
152.1	150.5	149.1	147.5	147.4	145.7	144.2	143.7	143.3	143.3	146.7

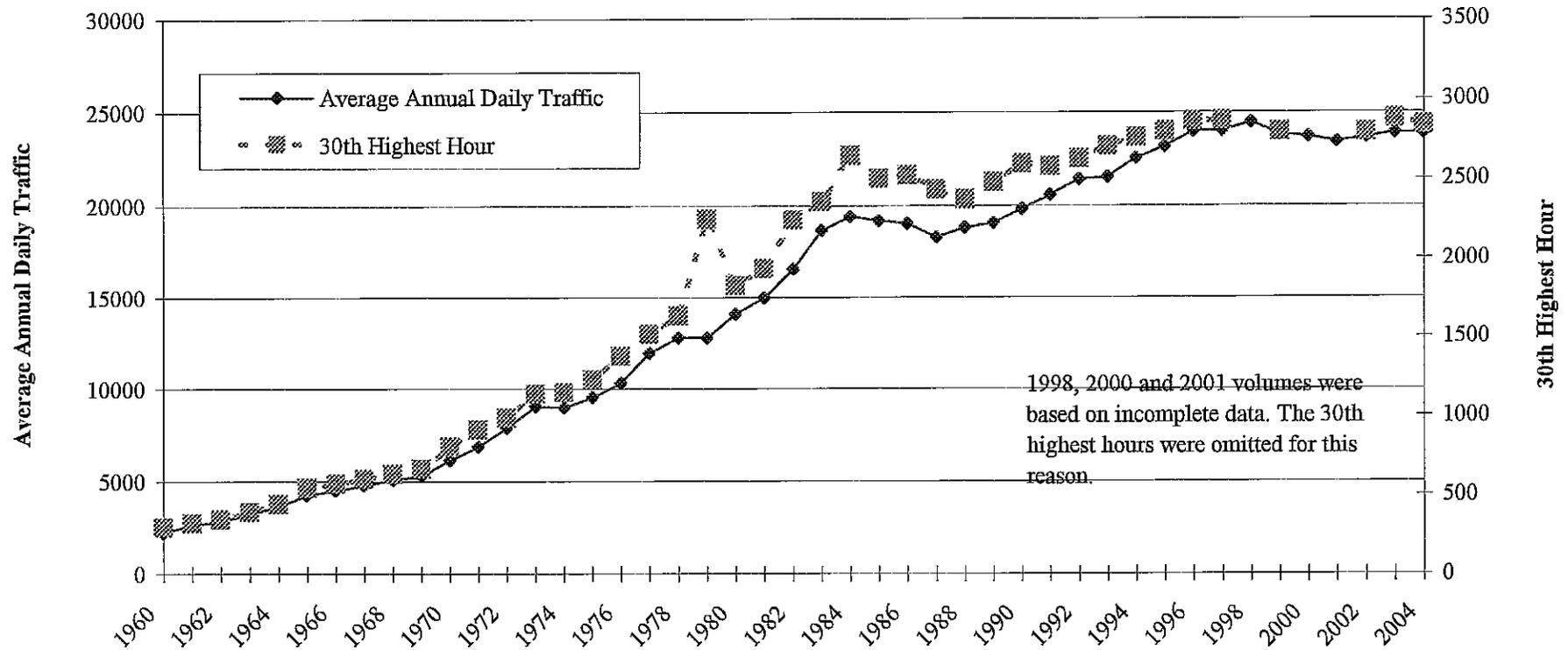
HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
174	166	165	155	153	151	149	148	147	147	141	136	134	132	156
17	10	17	17	16	16	17	17	17	17	15	17	15	16	
06/27	08/28	06/07	06/17	06/18	06/24	06/28	06/03	06/21	06/02	04/04	05/18	06/22	06/23	
15.7	14.9	14.9	14.0	13.8	13.6	13.4	13.3	13.2	13.2	12.7	12.2	12.1	11.9	14.0

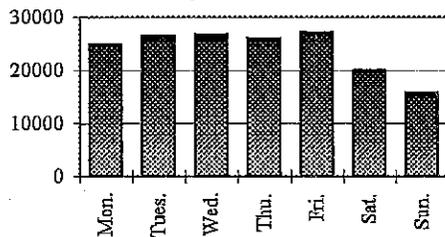
PERCENT BY HOUR

AM					PERCENT BY HOUR												PM						
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.5	0.4	0.2	0.2	0.4	1.4	2.7	5.4	5.1	5.7	6.3	7.2	7.5	7.6	7.7	8.4	8.5	7.3	5.2	4.0	3.5	2.4	1.4	0.9

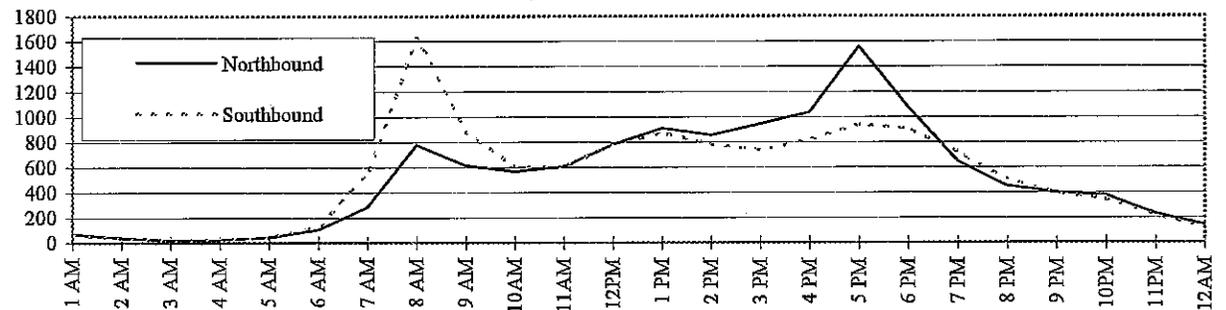
Permanent Traffic Recorder At 3 Mi. Egan Dr. (CDS MP 2.58)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60333000 9

EGAN BTW TWIN LKS DR & GLACIER AVE @ 3 MILEPOST EGAN ON 296000													AT MILEPOINT	2.579	HISTORICAL DATA
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN			
JAN	20873	87.5	93.8	6.2	107.1	116.4	116.2	102.1	114.7	111.3	82.6	60.9	2004 23863		
FEB	22868	95.8	94.1	5.9	100.5	110.6	108.3	111.1	119.2	109.9	86.5	63.8	2003 23902		
MAR	23235	97.4	94.3	5.7	103.6	108.3	109.7	110.9	115.8	109.7	85.1	66.7	2002 23637		
APR	24776	103.8	94.3	5.7	106.0	109.7	110.7	111.3	114.3	110.4	83.6	64.3	2001 23514		
MAY	25878	108.4	93.5	6.5	101.1	110.7	112.4	111.0	115.5	110.1	83.4	65.9	2000 23681		
JUN	26666	111.7	92.7	7.3	106.1	109.4	109.9	111.3	108.3	109.0	84.2	70.8	1999 23785		
JUL	26121	109.5	92.0	8.0	99.4	107.8	109.5	111.0	111.9	107.9	85.3	75.1	1998 24433		
AUG	26021	109.0	93.7	6.3	110.0	110.2	111.6	109.6	109.7	110.2	81.3	67.6	1997 23992		
SEP	24358	102.1	94.2	5.8	97.9	112.1	113.6	111.7	116.2	110.3	84.2	64.3	1996 23947		
OCT	23024	96.5	93.9	6.1	101.8	110.1	110.4	110.9	116.4	109.9	86.0	64.3	1995 23124		
NOV	21421	89.8	94.2	5.8	112.2	114.5	114.8	92.1	113.5	109.4	86.4	66.3	1994 22496		
DEC	21118	88.5	93.6	6.4	106.8	112.9	114.0	113.9	106.0	110.7	79.6	66.8	1993 21503		
ANN	23863		93.7	6.3	104.4	111.1	111.8	108.9	113.5	109.9	84.0	66.4	1992 21383		
													1991 20532		
													1990 19791		
													1989 19049		
													1988 18778		
													1987 18275		
													1986 18993		
													1985 19155		
													1984 19388		
													1983 18654		
													1982 16530		
													1981 14941		
													1980 14077		

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
31886	31118	31034	31003	30522	30156	30126	30016	29689	29642	30519
06/03	06/04	06/01	06/02	05/14	05/28	07/02	07/01	08/16	06/30	
133.6	130.4	130.1	129.9	127.9	126.4	126.2	125.8	124.4	124.2	127.9

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
2951	2948	2922	2909	2902	2900	2899	2899	2895	2895	2856	2837	2824	2807	2912
17	17	17	17	8	17	17	17	17	17	17	8	17	17	
04/15	06/08	06/01	05/19	05/11	05/18	06/16	05/25	06/07	06/04	07/22	05/05	07/13	06/29	
12.4	12.4	12.2	12.2	12.2	12.2	12.1	12.1	12.1	12.1	12.0	11.9	11.8	11.8	12.2

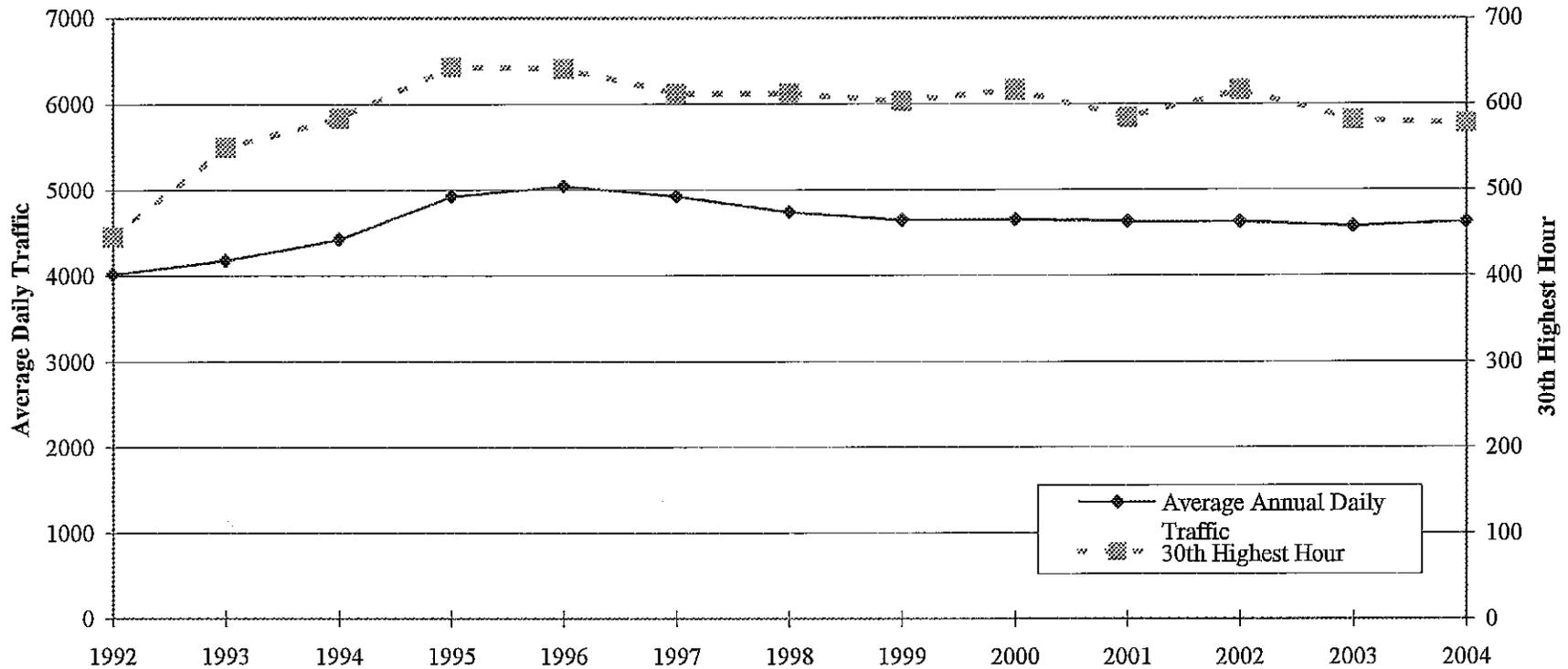
AM

PERCENT BY HOUR

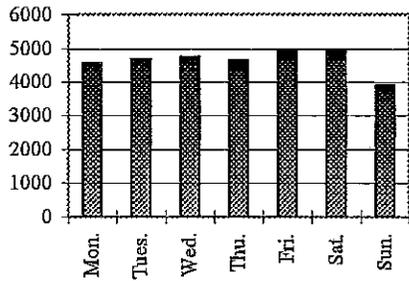
PM

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0.8	0.5	0.3	0.3	0.4	0.9	2.8	7.8	5.4	4.7	5.1	6.3	7.3	6.9	6.9	7.5	9.4	7.6	5.6	3.9	3.3	3.1	2.0	1.2

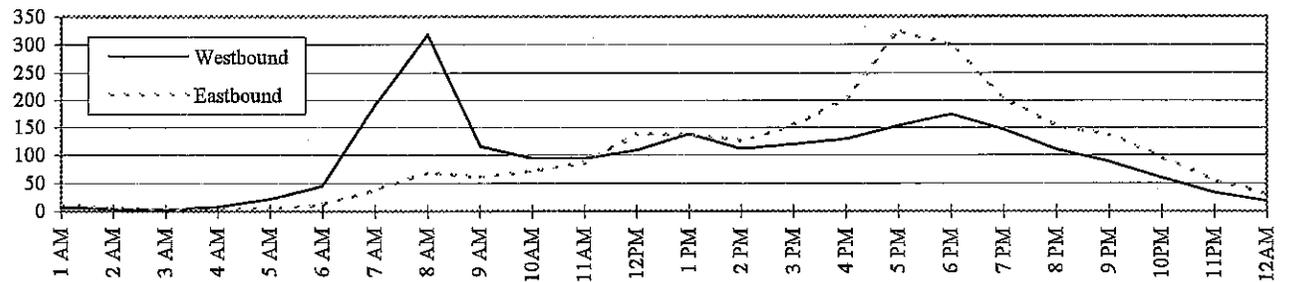
Permanent Traffic Recorder At Riverside Dr. (CDS Mi 1.47)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60500370 0

RIVERSIDE PTR CEMETARY ACCESS TO DIVISION JUNEAU ON 296500													AT MILEPOINT	1.471	HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN				
JAN	4076	88.4	93.5	6.5	100.1	103.3	104.9	96.8	107.9	102.6	104.4	82.8	2004	4613		
FEB	4251	92.2	94.2	5.8	97.8	100.7	102.3	100.9	106.8	101.7	106.8	84.7	2003	4563		
MAR	4319	93.6	94.3	5.7	97.5	100.1	100.5	100.3	108.0	101.3	109.5	84.2	2002	4615		
APR	4936	107.0	94.7	5.3	100.1	101.4	106.0	100.3	104.0	102.4	107.1	81.1	2001	4617		
MAY	5454	118.2	94.4	5.6	94.6	102.0	101.7	100.9	104.9	100.8	114.3	81.7	2000	4641		
JUN	5231	113.4	93.2	6.8	100.9	100.4	101.0	100.4	101.4	100.8	112.5	83.5	1999	4630		
JUL	4922	106.7	92.7	7.3	97.5	98.2	101.1	104.2	107.3	101.7	105.2	86.6	1998	4727		
AUG	4822	104.5	93.7	6.3	102.3	101.0	103.6	102.1	105.0	102.8	101.7	84.2	1997	4914		
SEP	4544	98.5	94.5	5.5	92.5	103.8	104.2	104.1	106.5	102.2	107.5	81.5	1996	5036		
OCT	4391	95.2	94.3	5.7	99.0	97.9	100.2	98.6	107.2	100.6	108.2	88.9	1995	4912		
NOV	4094	88.7	94.2	5.8	102.1	102.2	107.8	95.3	107.4	103.0	100.1	85.0	1994	4413		
DEC	4319	93.6	93.6	6.4	102.6	103.5	102.2	103.3	108.2	104.0	94.3	86.0	1993	4173		
ANN	4613		93.9	6.1	98.9	101.2	103.0	100.6	106.2	102.0	106.0	84.2	1992	4014		

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
6404	6303	6297	6256	6212	6169	5963	5947	5931	5777	6126
05/08	05/22	05/15	06/05	05/01	06/19	05/21	05/29	05/11	07/10	
138.8	136.6	136.5	135.6	134.7	133.7	129.3	128.9	128.6	125.2	132.8

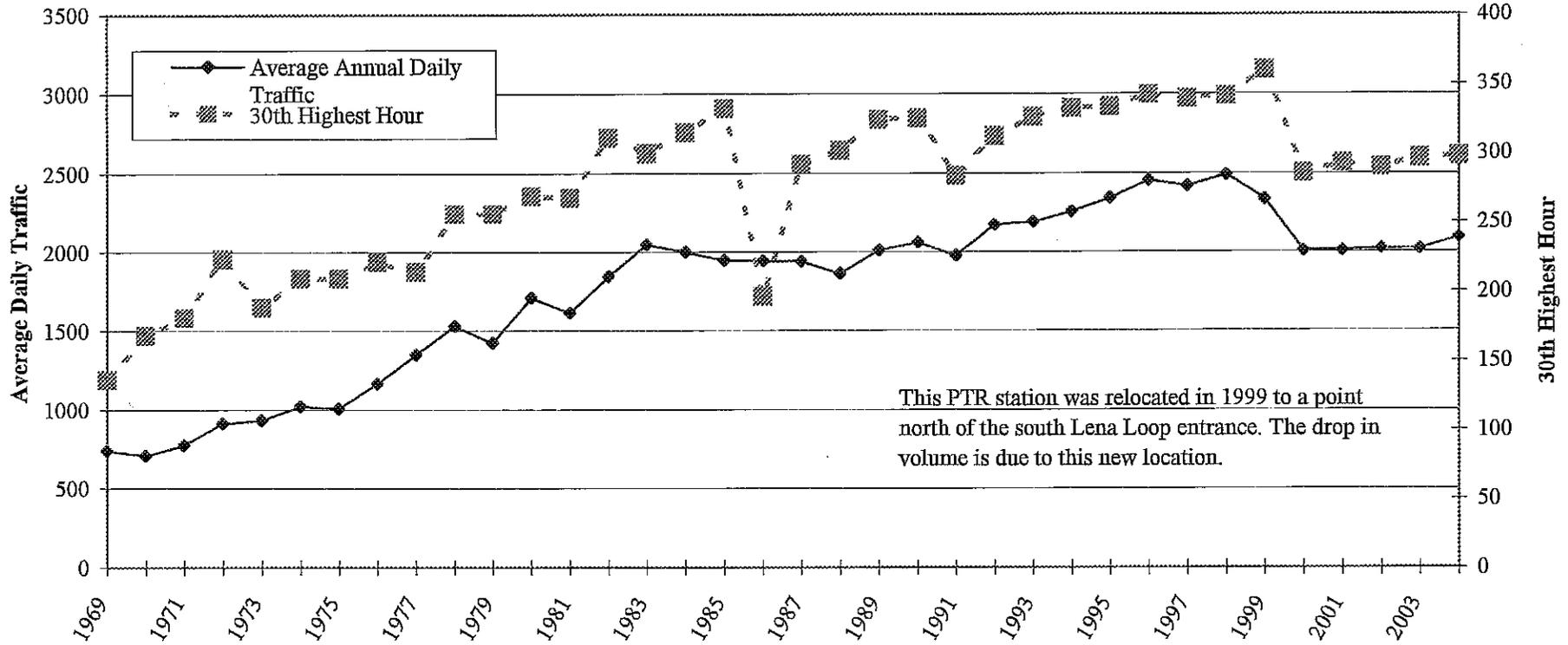
HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
723	700	662	661	653	638	634	633	627	626	603	577	566	554	656
18	18	17	18	18	18	18	18	18	18	18	12	18	18	
05/18	06/23	06/21	06/22	05/20	05/11	05/19	05/03	06/01	04/29	05/06	05/15	06/07	06/09	
15.7	15.2	14.4	14.3	14.2	13.8	13.7	13.7	13.6	13.6	13.1	12.5	12.3	12.0	14.2

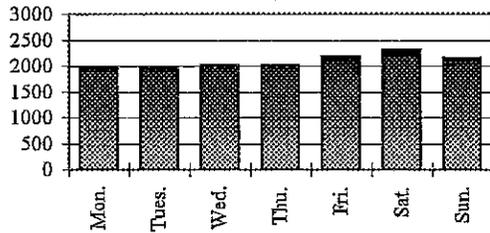
PERCENT BY HOUR

AM					PERCENT BY HOUR												PM						
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.6	0.4	0.2	0.3	0.5	1.0	3.8	6.6	3.9	4.1	4.5	5.8	6.5	5.9	6.4	7.4	9.5	9.2	7.1	5.4	4.6	3.3	2.0	1.1

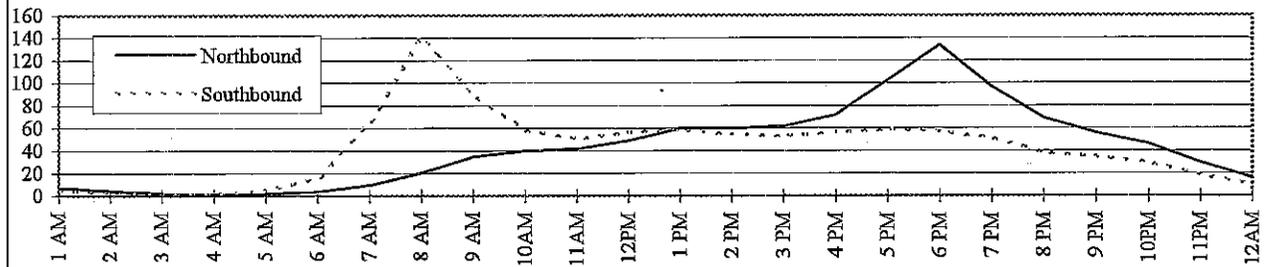
Permanent Traffic Recorder At 16 Mile Glacier Hwy. (CDS MP 14.07)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60311000 9

GLACIER HWY BTW S LENA LOOP & AUKE REC ROAD JUNEAU ON 296000													AT MILEPOINT	14.072		HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN					
JAN	1510	72.3	93.9	6.1	103.3	100.2	98.2	99.7	100.2	100.3	99.8	98.7	2004	2089			
FEB	1714	82.0	94.4	5.6	95.9	99.3	94.2	96.5	104.7	98.1	110.9	98.6	2003	2015			
MAR	1798	86.1	94.7	5.3	91.6	94.7	92.9	94.7	104.6	95.7	115.2	106.3	2002	2019			
APR	2199	105.3	94.5	5.5	89.6	97.2	96.9	98.2	105.8	97.5	103.9	108.4	2001	2007			
MAY	2728	130.6	92.7	7.3	85.5	90.6	92.8	97.3	108.9	95.0	122.3	102.8	2000	2005			
JUN	2755	131.9	91.1	8.9	94.0	86.5	91.9	97.2	105.8	95.1	119.2	105.4	1999	2333			
JUL	2629	125.8	91.8	8.2	95.4	91.8	96.1	96.5	106.5	97.3	109.5	104.1	1998	2487			
AUG	2603	124.6	93.6	6.4	97.1	92.0	92.7	89.6	96.3	93.5	117.1	115.3	1997	2419			
SEP	2033	97.3	94.4	5.6	90.6	94.4	99.7	95.0	106.2	97.2	115.9	98.4	1996	2454			
OCT	1859	89.0	94.4	5.6	100.0	93.4	95.4	93.5	101.6	96.8	112.7	103.4	1995	2339			
NOV	1634	78.2	94.1	5.9	97.2	100.9	103.5	99.5	104.6	101.1	100.1	94.5	1994	2256			
DEC	1608	77.0	93.4	6.6	96.1	100.2	98.5	100.3	105.4	100.1	102.3	97.2	1993	2190			
ANN	2089		93.6	6.4	94.7	95.1	96.1	96.5	104.2	97.3	110.7	102.8	1992	2171			
													1991	1975			
													1990	2060			
													1989	2010			
													1988	1862			
													1987	1939			
													1986	1942			
													1985	1944			
													1984	1997			
													1983	2044			
													1982	1842			
													1981	1616			
													1980	1711			

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
3928	3730	3728	3621	3569	3479	3468	3452	3427	3365	3577
06/19	06/20	05/08	05/15	05/22	08/14	08/08	06/26	06/18	08/07	
188.0	178.6	178.5	173.3	170.8	166.5	166.0	165.2	164.0	161.1	171.2

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
367	342	335	334	334	334	328	327	325	323	310	298	286	276	335
14	16	14	17	18	16	17	15	15	19	16	16	15	15	
04/11	04/11	06/20	06/20	06/18	05/23	05/08	06/20	04/11	04/30	06/20	05/08	06/19	02/29	
17.6	16.4	16.0	16.0	16.0	16.0	15.7	15.7	15.6	15.5	14.8	14.3	13.7	13.2	16.0

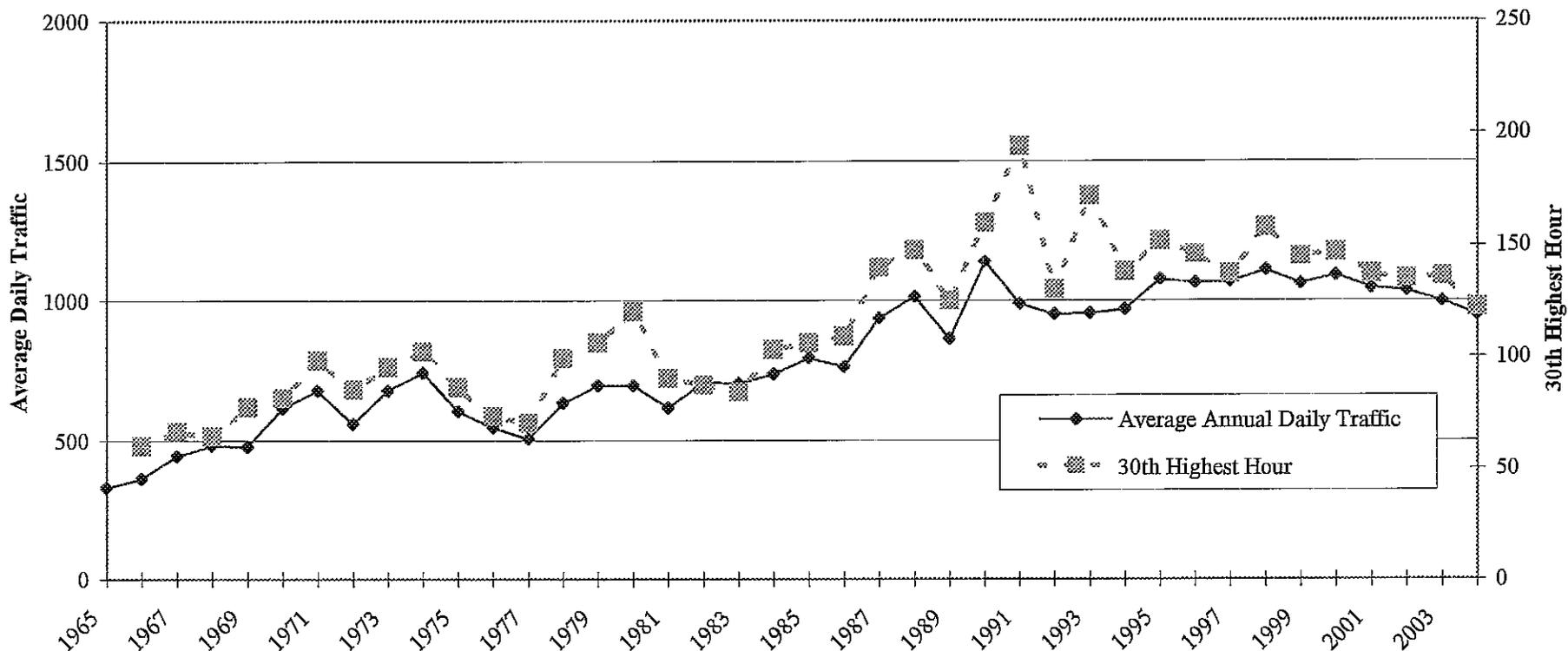
AM

PERCENT BY HOUR

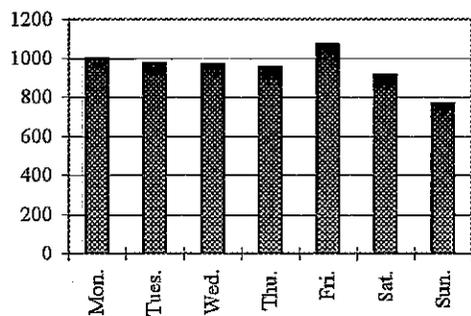
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.8	0.5	0.3	0.2	0.3	0.9	2.8	6.0	5.3	4.9	5.0	5.8	6.6	6.7	6.7	7.1	8.0	8.7	6.9	5.0	4.2	3.6	2.3	1.3

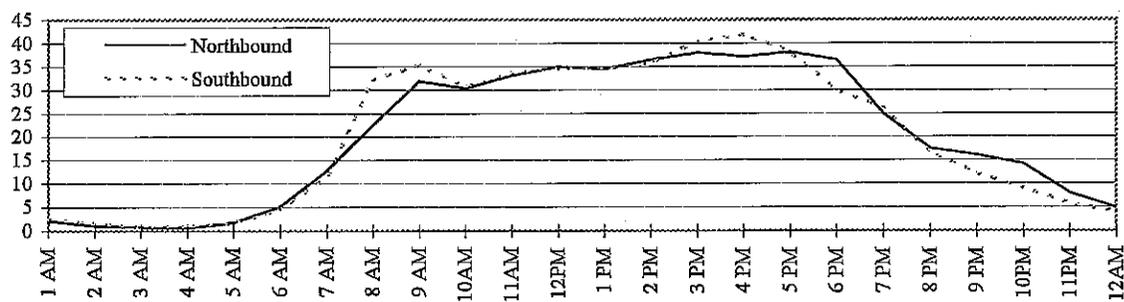
Permanent Traffic Recorder At 5 Mi. Haines Hwy. (CDS MP 1.29)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60621000 9

HAINES HWY BTW SAWMILL & AIRPORT RDS 1200 FT N OF PIEDA ON 298000												AT MILEPOINT	1.287	HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN			
JAN	551	58.1	95.3	4.7	114.2	104.4	101.4	94.9	117.2	106.4	88.6	79.2		2004	948
FEB	652	68.8	95.1	4.9	102.4	109.4	94.3	104.3	119.5	106.0	93.6	76.7		2003	998
MAR	700	73.8	95.7	4.3	107.7	108.1	102.3	100.1	115.8	106.8	92.3	73.2		2002	1035
APR	939	99.1	95.3	4.7	103.1	105.9	104.8	95.8	110.7	104.1	94.8	85.1		2001	1045
MAY	1137	119.9	92.8	7.2	106.5	103.0	100.0	101.0	109.5	104.0	97.2	82.6		2000	1092
JUN	1226	129.3	92.8	7.2	103.4	96.2	102.0	104.3	107.5	102.7	100.3	86.4		1999	1062
JUL	1305	137.7	93.3	6.7	99.8	98.5	106.2	106.3	108.6	103.9	93.9	86.6		1998	1110
AUG	1367	144.2	94.0	6.0	102.9	97.6	98.2	102.8	109.7	102.2	101.7	87.0		1997	1067
SEP	1114	117.5	95.7	4.3	98.7	102.2	103.1	102.3	107.6	102.8	102.8	83.4		1996	1063
OCT	971	102.4	96.4	3.6	107.2	97.0	98.8	97.3	112.8	102.6	104.3	82.0		1995	1075
NOV	771	81.3	96.1	3.9	108.6	100.9	106.3	93.8	117.1	105.3	98.2	75.4		1994	968
DEC	637	67.2	95.3	4.7	108.5	105.0	106.3	98.3	120.4	107.7	86.9	74.7		1993	955
ANN	948		94.8	5.2	105.3	102.4	102.0	100.1	113.0	104.5	96.2	81.0		1992	951
														1991	988
														1990	998
														1989	883
														1988	1014
														1987	937
														1986	763
														1985	794
														1984	736
														1983	703
														1982	707
														1981	614
														1980	695

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
1646	1619	1615	1571	1544	1507	1505	1486	1479	1459	1543
08/16	08/13	08/14	08/06	08/12	07/30	07/29	07/02	08/11	07/28	
173.6	170.8	170.4	165.7	162.9	159.0	158.8	156.8	156.0	153.9	162.8

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
146	145	139	139	139	137	136	132	130	130	126	122	120	118	137
13	17	12	15	17	16	17	15	10	15	14	14	18	14	
08/16	09/24	08/14	08/16	08/06	08/16	08/23	07/14	06/03	03/29	08/16	08/12	09/15	08/13	
15.4	15.3	14.7	14.7	14.7	14.5	14.3	13.9	13.7	13.7	13.3	12.9	12.7	12.4	14.5

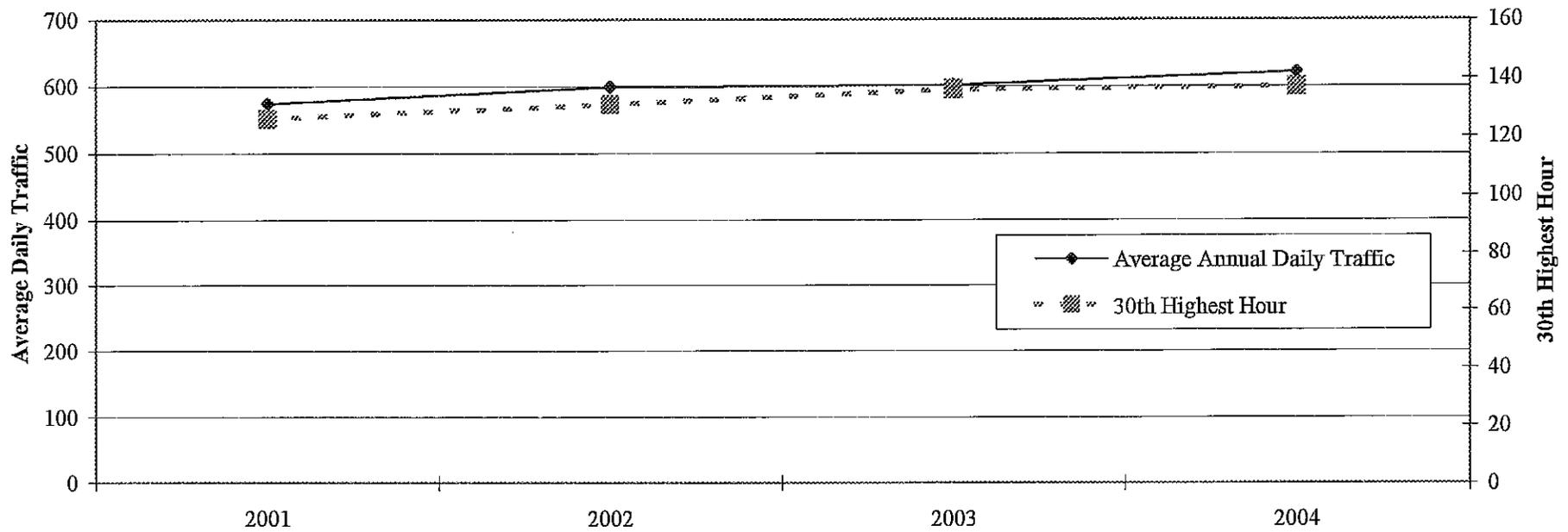
AM

PERCENT BY HOUR

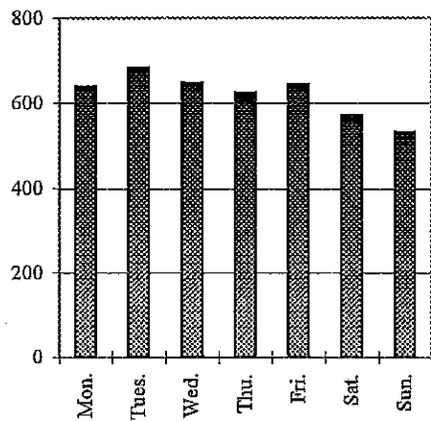
PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.6	0.4	0.2	0.2	0.4	1.0	2.3	5.0	6.4	6.4	7.0	7.4	7.4	7.8	8.3	8.1	7.8	6.7	5.2	3.6	2.9	2.4	1.5	1.0

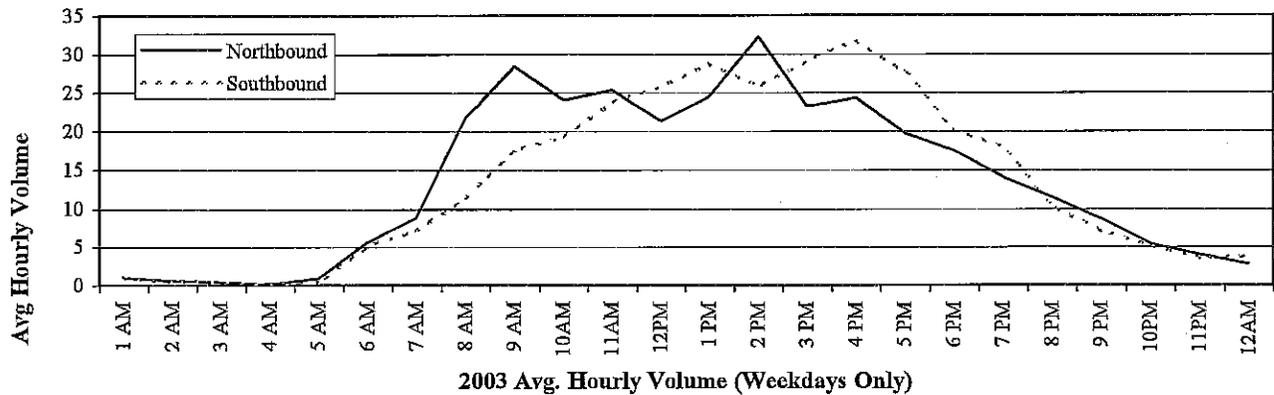
Permanent Traffic Recorder on Klondike Highway (CDS MP 2.55)



2004 Annual Average Daily Traffic by Day of Week



2004 Annual Average Weekday Traffic by Hour of Day



2003 Avg. Hourly Volume (Weekdays Only)

OR01-TWV-R002

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 TRAFFIC STUDIES FOR ROUTES IN FOR STATEWIDE

FIXED RECORDER SUMMARY: 2004
 RECORDER NUMBER 60711000 9

KLONDIKE HWY BTW DYEA & SANITORIUM RD, SKAGWAY ON 299500													AT MILEPOINT	2.548	HISTORICAL DATA	
MONTH	MADT	%	6-10	10-6	MON	TUE	WED	THU	FRI	WKDY	SAT	SUN				
JAN	208	33.5	94.2	5.8	110.2	113.0	108.1	96.2	112.9	108.1	85.0	72.7	2004	621		
FEB	236	38.0	94.4	5.6	89.6	106.7	104.2	103.7	115.9	104.0	93.2	84.6	2003	601		
MAR	291	46.9	95.4	4.6	95.8	108.1	99.5	90.3	109.9	100.7	114.3	82.7	2002	599		
APR	546	87.9	95.1	4.9	97.6	102.8	110.6	102.2	104.3	103.5	96.0	86.5	2001	574		
MAY	872	140.4	95.7	4.3	101.9	104.8	90.4	103.8	103.6	100.9	97.2	98.0	2000	879		
JUN	1131	182.1	95.0	5.0	110.1	112.5	110.5	90.5	81.4	101.0	91.4	103.8	1999	872		
JUL	1329	214.0	95.7	4.3	105.6	105.1	104.2	106.1	95.0	103.2	88.7	94.9	1996	659		
AUG	1212	195.2	95.8	4.2	103.7	108.3	105.7	109.8	92.0	103.9	88.6	92.1	1995	571		
SEP	863	139.0	95.5	4.5	98.1	102.4	104.2	104.3	111.3	104.1	92.1	87.7	1994	584		
OCT	332	53.5	94.9	5.1	105.7	116.6	101.5	95.0	107.0	105.2	98.6	75.8	1993	542		
NOV	215	34.6	94.2	5.8	110.1	124.6	101.3	101.4	113.1	110.1	80.5	68.8	1991	608		
DEC	214	34.5	94.1	5.9	107.4	114.5	113.2	104.2	100.4	107.9	80.0	79.0	1990	742		
ANN	621		95.0	5.0	103.0	110.0	104.5	100.6	103.9	104.4	92.1	85.6	1989	608		
													1988	545		
													1987	660		

HIGHEST DAYS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG
1481	1470	1470	1463	1449	1444	1433	1432	1418	1418	1448
07/08	08/05	07/15	08/10	07/05	06/29	07/07	07/06	09/10	08/16	
238.5	236.7	236.7	235.6	233.3	232.5	230.8	230.6	228.3	228.3	233.2

HIGHEST HOURS

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
160	159	157	155	153	151	150	149	148	147	141	137	134	132	153
14	14	14	14	19	13	15	16	14	14	14	16	14	17	
07/04	07/13	08/16	07/15	09/10	08/05	07/06	07/01	07/29	08/15	08/10	07/26	07/22	06/17	
25.8	25.6	25.3	25.0	24.6	24.3	24.2	24.0	23.8	23.7	22.7	22.1	21.6	21.3	24.6

AM

PERCENT BY HOUR

PM

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
0.4	0.2	0.1	0.1	0.2	1.4	2.2	4.7	6.6	6.6	7.6	7.3	8.4	9.2	8.3	8.6	7.3	5.9	5.0	3.5	2.5	1.8	1.2	1.1