Enhancing Patronage Estimation and Line Performance Monitoring Procedures

Technical Memorandum 2

Prepared for:

Southern California Rapid Transit District

October 1987

Multisystems, Inc.

1050 Massachusetts Avenue

Cambridge, Massachusetts 02138

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Mr. Keith Killough
Planning Manager
SCRTD
425 South Main Street
Los Angeles, CA 90013

Dear Keith:

Enclosed are 3 copies of the Task 2 Technical Memorandum on using point checks to update ride checks. Peter and I will be at your office on Monday, October 26, to discuss the results and the programs used for updating.

Sincerely,

Gary F. Ruprecht

0056R

Refreshing Ride Checks with Point Checks Data

1.   Overview of Task 2

For the last several years, it has been SCRTD's policy to conduct a full day ride check of every line once a year, for the weekday schedule at least. The ride check program is quite expensive, and the purpose of this task is to explore the feasibility of updating ride checks using point checks. Point checks, at one or many points, provide partial information about the load profile of a trip, and combining this information with past ride check data can produce an estimated ride check that incorporates the up-to-date point check information, and is based on the pattern of the old ride checks.

The updating methodology described in the original proposal has been refined somewhat, and tested on several SCRTD lines to determine its accuracy.

2.   Updating Methodology

The most recent set of ride checks is used to generate a seed O-D matrix upon which the estimate is based. The O-D matrix is then altered by a procedure known as Iterative Proportional Fit (IPF), which alternately factors up or down blocks of cells in the O-D matrix that correspond to observed load and on/off activity at the checkpoints to make them match observed load, ons, and offs. From the adjusted matrix, ons and offs are calculated by taking row and column totals, producing an estimated ride check. A more techincal description of the algorithm is found in Appendix A.

Two changes from the methodology as originally proposed have been implemented. The first is needed when updating based on multiple point checks because, unlike in some IPF applications, some cells in the O-D matrix are factored more often than others in the course of an iteration. The cells factored more often are those corresponding to long trips, which are observed at all the checkpoints, as opposed to short trips, which may be observed at only one checkpoint. Accordingly, an "outer loop" was added to achieve internal consistency by essentially factoring the seed matrix up or down until the total number of trips in the factored matrix equals the total number of trips in the estimate. With this change, scaling the seed matrix up or down will leave the results unchanged.

The second change was how to update the number of passenger trips that do not pass a checkpoint. These passenger trips are not observed by the point checks and therefore are

not affected by IPF. We had proposed factoring them up or down according to how much total boardings in the rest of the route was estimated to go up or down. The procedure we have instead used is more sensitive to growth on route segments. It factors up the travel within a between-checkpoint segment according to the estimated level of growth in intersegment activity (boarding and alightings) between that segment and other segments.

3.   Applying the Procedure -- Technical Details

Implementing the updating procedure required us to resolve some technical issues, which we discuss here.

First, it became obvious that each branch needs its own seed. To make the seeds reflect changing travel patterns throughout the day, we created a separate seed for each branch-time period combination. The day was broken into time periods with the following time boundaries: 6 a.m., 9 a.m., 2 p.m., 6:30 p.m., and 3 a.m. The seed matrix for a branch-period combination was found by first accumulating branch-period on/off totals by stop from the seed data (the prior set of ride checks), and then generating an O-D matrix from this period profile.

When a branch-period combination has only a few trips in the seed data, it may be unwise to rely exclusively on those few trips for the seed matrix. Therefore, we devised a method to incorporate information from trips on other branches in that time period that served many of the same stops as the branch in question. We generated an O-D matrix for every trip in the seed data, and accumulated these O-D matrices by period, summing over all branches. The period O-D matrices were then normalized to reflect the activity between each O-D pair per bus trip serving that O-D pair. When a branch-period combination contained too few trips, its seed matrix was generated by extracting from the normalized period O-D matrix the cells served by that branch. Branch-period combinations with no trips in the seed data were not analyzed.

Point check data was simulated by extracting on, off, and thru volume at designated checkpoints from a set of more recent ride checks ("new data"). (Thru volume equals arriving load minus offs, or (equivalently) departing load minus ons. Using arriving or departing load provides the same information as using thru volume (assuming ons and offs are also used), but allows for quicker, cleaner processing because on, off, and thru volumes do not overlap in an O-D matrix). For each line, checkpoints were chosen by SCRTD staff in order of priority so that we could simulate point checks done at one, two, or three or more stops.

Existing SCRTD ride check and line description computer files were used without modification. Branches whose stop lists had changed significantly between the seed data (generally 1985) and the new data (1986) were excluded from the analysis.

4.   Evaluation Procedures

We used old (generally 1985) ride check data to generate seeds, and new (1986) ride check data to supply point check data to update the seeds. Because we had complete ride check data for the 1986 trips, we could compare the estimated ride check profile to the true profile, and thereby assess the accuracy of the updating procedure.

4.1 Items Compared

Ride check data are used to measure several items, and we recognized that the updating procedure might measure some items more accurately than others. Furthermore, for some items a high level of accuracy is desired. The following items were compared.

> ### Item
>
> Total boardings
> Segment Boardings
> Maximum load
> Passenger-miles

A segment here is the set of stops between a timepoint. A timepoint is a stop that the SCRTD route files designate as a timepoint; they are spaced about one mile apart.

[handwritten margin note: better def]

It should be emphasized that "maximum load" is the greatest load on a trip, regardless of where it occurs, and differs from "peak load", which is the load at the point of highest average volume. We did not assess the accuracy of measuring peak load since the point checks are nearly always done at the peak load point, and so peak load will be estimated without error.

[handwritten margin note: ? Is this distinction appropriate to ridership?]

The items are compared at both the trip level and at the period level. A high degree of randomness attaches to trip level data. More reliable is period-level data, and we hoped that the period-level estimates would agree well with the true period-level values.

4.2 Measuring Accuracy

The measure of error for trip-level quantities is the standard error, which is essentially the same as standard deviation, except that it accounts for any possible bias in the

estimates. It is the square root of the mean squared error, which is the average of the squared deviations between the estimated value (of, say, boardings) and the true value, averaged over all trips in the new dataset lying in a given line/direction/time period (L/D/TP). In order to make the error measures dimensionless, we divided the standard errors by the mean of the item, yielding a relative standard error, which is the quantity we report. Relative standard error is the same as coefficient of variation, except that it accounts for estimation bias.

For period-level measures there is only one estimated-to-true comparison for each item, and so there is no standard error as such. We report the actual error, divided by the true value, as the relative error.

4.3. Averaging Accuracy Measures

In order to provide meaningful summaries, accuracy measures have been aggregated at several levels. The general rules we have followed in aggregating are as follows: (1) to get an average relative standard error for trip-level quantities, we averaged standard errors and means separately, and then took their ratio; (2) to get average relative error for period-level items, we averaged errors and means separately and took their ratio; and (3) to get average relative absolute error for period-level items, we averaged absolute errors and means separately and took their ratio. The finest level of reporting errors in segment boardings is the L/D/TP level, meaning that the segments of a route have been averaged together. In order to provide a little more detail, however, we grouped segments into the strata, major and minor. A major segment is one that is in the upper 25 percentile of boardings for its line/direction/time period.

5. Numerical Results

Comparisons between estimated and actual route profiles were made for the following lines in both directions:

Line	Dir	Line	Dir
30	both	152	both
45	both	200	both
53	both	209	both
92	both	260	both
117	both		

Compatability problems between old and new stop lists prevented us from successfully making comparisons for lines 4, 10, 60, 96, 111, 207, 210, 480, and 560. Such a problem could occur if, for instance, stops had been eliminated or timepoints

had moved to a stop not on the old stop list. Most of these difficulties will <u>not</u> affect SCRTD's application of the procedure, since in normal application there will not be a new stop list; the estimated ride checks will have the stop list of the seed data. When minor stop list changes have occurred, interpretation of a line profile using an old stop list will not pose any difficulty to planning and scheduling staff.

5.1 Comparisons for a Line/Direction/Time Period

Comparisons by line, direction and time period are shown in the tables of Appendix B. A typical result, displayed here as Table 1, is that for Line 53, time period 2 (6 a.m. - 9:30 p.m.), which is discussed for ilustration's sake. The Line 53 seeds were taken from 1984 ride checks; the comparison of estimated vs. true is based on 1985 ride checks. In the 1985 data, there were 23 trips in direction 1 (north) and 13 in direction 3 (south). (Trips on branches that had no 1984 seed ,because that branch was not used in 1984 in that time period, are omitted, if any.) In direction 1, average boardings per trip was 121. The estimates, using 1, 2, and 3 points of point check data, are 127, 119, and 115. In direction 3, true average boardings is 146; the estimates using 1, 2, and 3 points are 162, 157, and 144. A comparison of these L/D/TP averages results in the relative errors shown in the table. If we average the two directions, the relative absolute errors based on 1, 2, and 3 points are 8%, 4.5%, and 4%. The prediction of average maximum load is quite precise for both directions with 1, 2, or 3 points; relative errors vary from -5% to +3%. The comparison of average passenger-miles, which indicates how well load all along the route is estimated, shows the advantage of using multiple points. Using 1, 2, and 3 points, the relative absolute errors, averaging over both directions, drop from 17.5% to 11.5% to 1.5%.

[handwritten margin notes: Brdgs, Max Load, PMT]

The trip-level relative standard errors for boardings in direction 1, using 1, 2, and 3 points, are 26%, 22%, and 16%. Using a normal approximation, these figures represent 68% confidence intervals, and doubling them will yield 95% confidence intervals. That is, using 3 points to estimate boardings, 68% of the time the estimated boardings figure is within 16% of the true value, and 95% of the time the estimated figure is within 32% of the true figure. These accuracy levels are far worse than those found for the period-level averages, as expected. However, considering that individual trips vary from day to day with a relative standard error (coefficient of variation) of around 20%-70%, being off by 16% or 26% in estimating the activity of a single trip on a single day will only increase the overall error by a small to moderate amount. Trip-level relative standard errors in direction 1 for maximum load are, using 1, 2, and 3 points, 9%, 8%, and 8%. These very accurate estimates are probably due to the fact that maximum loads for this L/D/TP occur at or very near the checkpoints

TABLE 1
RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 53 / DIRECTION: 1 / TIME PERIOD: 2 NO. TRIPS: 23

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	121.09	384.62	64.57<=	64.57	28.41	5.12
	1	126.65	430.15	62.09	66.18	30.69	4.94
	2	119.45	405.23	61.32	65.37	29.12	4.58
	3	114.72	384.36	61.27	65.31	27.90	4.43
	4	.	.	.	.	.	.
RELATIVE	1	.05	.12	-.04	-.04	.08	-.04
ERROR	2	-.01	.05	-.05	.01	.03	-.11
	3	-.05	.00	-.05	.01	-.02	-.14
	4	.	.	.	.	.	.
RELATIVE	1	.05	.12	.04	.04	.08	.04
ABSOLUTE	2	.01	.05	.05	.01	.03	.11
ERROR	3	.05	.00	.05	.01	.02	.14
	4	.	.	.	.	.	.
RELATIVE	1	.26	.24	.09	.09	.07	.33
STANDARD	2	.22	.16	.08	.07	.06	.33
ERROR	3	.16	.07	.08	.07	.04	.33
	4	.	.	.	.	.	.

Trip by Trip

RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 53 / DIRECTION: 3 / TIME PERIOD: 2 NO. TRIPS: 13

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	145.69	403.14	53.54<=	53.54	30.44	9.06
	1	161.88	496.58	55.56	59.23	34.60	9.68
	2	157.38	474.92	55.32	58.97	33.19	9.64
	3	140.96	416.95	51.07	54.44	27.94	9.52
	4	.	.	.	.	.	.
RELATIVE	1	.11	.23	.04	.04	.14	.07
ERROR	2	.08	.18	.03	.10	.09	.06
	3	-.03	.03	-.05	.02	-.08	.05
	4	.	.	.	.	.	.
RELATIVE	1	.11	.23	.04	.04	.14	.07
ABSOLUTE	2	.08	.18	.03	.10	.09	.06
ERROR	3	.03	.03	.05	.02	.08	.05
	4	.	.	.	.	.	.
RELATIVE	1	.27	.29	.22	.22	.14	.19
STANDARD	2	.17	.24	.13	.17	.10	.19
ERROR	3	.14	.11	.09	.08	.08	.21
	4	.	.	.	.	.	.

where load is observed. The trip-level relative standard errors for passenger-miles in direction 1 are, using 1, 2, and 3 points, 24%, 16%, and 7%, showing very good predictive accuracy for the 3-point estimate.

Suprisingly, the segment-level items are predicted with equal or better accuracy than route-level quantities. In direction 1, boardings on a "typical" major segment is estimated with relative standard errors of 7%, 6%, and 4% using 1, 2, and 3 points. The "typical" major segment has 28 boardings. The "typical" minor segment, with only 5 boardings on average has relative standard errors of 33%, using 1, 2, or 3 points. At the period-level, the estimation errors for the "typical" major segment are 8%, 3%, and 2% using 1, 2, and 3 points; for minor segments, these errors are 4%, 11%, and 14%.

[handwritten margin note: this suggests that long trips are not well simulated]

The figures given above are simply for illustration's sake; different lines and time periods display different characteristics. Summary comparisons, aggregated over all L/D/TP's, follow below.

5.2 Comparison Summaries
5.2.1 Period-Level Estimates: Relative Error

Table 2 shows summaries, over all lines, directions, and time periods, of the statistics reflecting the accuracy of estimates of period-level quantities (such as average boardings per trip for a L/D/TP). Of primary importance are the relative errors. To the degree they differ significantly from zero, they indicate a bias, i.e., an overall tendency to under- or over-estimate. For route boardings, the relative errors using 1, 2, and 3 points are 3%, 3%, and 2%, indicating almost no bias. For passenger-miles, the relative errors again show a slight tendency to overestimate, and improve with each additional point used for the estimation.

The relative errors for maximum load, however, show a negative bias. This phenomenon is expected since the updating procedure predicts the "most likely" route profile for each trip, and thus tends to avoid high peaks that randomly occur. Users of this updating procedure should recognize this phenomenon, and expect that actual load on an individual trip will be at some points higher and at other points lower than what is predicted, and that consequently maximum load will tend to be underpredicted by about 7%.

Segment-level boardings, like route-level boardings, show little or no bias.

TABLE 2
RIDE CHECK UPDATING -- SUMMARY TABLE

NO. TRIPS: 1501

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	90.58	298.90	40.06(=	40.06	18.11	6.62
	1	93.65	308.09	36.59	39.01	18.83	6.32
	2	93.59	308.35	37.98	40.48	18.95	6.38
	3	91.69	300.22	37.79	40.28	18.55	6.28
	4	115.10	377.43	41.34	44.07	16.29	5.29
RELATIVE	1	.03	.03	-.09	-.09	.04	-.05
ERROR	2	.03	.03	-.05	.01	.05	-.04
	3	.02	.02	-.05	.02	.04	-.04
	4	.03	.03	-.03	.04	.06	-.06
RELATIVE	1	.12	.10	.12	.12	.13	.14
ABSOLUTE	2	.08	.06	.07	.06	.10	.12
ERROR	3	.06	.05	.07	.05	.08	.10
	4	.08	.05	.05	.05	.12	.15
RELATIVE	1	.31	.27	.25	.25	.14	.27
STANDARD	2	.22	.17	.16	.16	.10	.24
ERROR	3	.18	.13	.13	.13	.09	.22
	4	.19	.13	.12	.13	.11	.26

5.2.2   Period Level Estimates: Relative Absolute Error

Relative absolute errors of estimates of L/D/TP-level averages, displayed in Table 2, can be roughly interpreted as the C.O.V. of the average for a "typical" L/D/TP. For route boardings, the relative absolute errors using 1, 2, and 3 points are 12%, 8%, and 6%. The figures suggest that the updating procedure is quite accurate at estimating time period-level boardings. The passenger-mile figures are also quite good.

The average absolute error for maximum load is comparable to those for boardings and passenger-miles. However, if this bias is accounted for by factoring up the predicted maximum load figures by 7%, the relative absolute errors fall slightly to 12%, 6%, and 5% for 1, 2, and 3 points.

5.2.3   Trip-Level Estimates: Relative Standard Error

Also displayed in Table 2 are the relative standard errors of items estimated at the trip level. For route boardings, averaged over all lines and time periods, the RSE's are 31%, 22%, and 18% using 1, 2, and 3 points. As stated in Section 5.1, these figures can be considered as 68% confidence intervals (double them to get 95% confidence intervals) for the estimate of boardings on a single trip in a "typical" L/D/TP. These figures show that it would be improper to place much confidence in an estimate of boardings for a single trip. Indeed, accuracy at this level of detail cannot be expected from any updating procedure using only one day of observation because of the high degree of randomness in passenger activity at the trip level from day to day. However, by doing point checks on several days and averaging the results at the trip level, a more reliable estimate of trip-level activity can be obtained at moderate cost, as discussed in Section 5.3.

The relative standard errors of passenger-miles are 27%, 17%, and 13%, for 1, 2, and 3 points. The benefit of each additional point is obvious. Again, trip-level estimates for a single day cannot be made with a high degree of confidence; only averages over several days or several trips will be accurate.

The relative standard error for unadjusted maximum load is lower than for boardings and comparable to that for passenger-miles. When estimated maximum loads are routinely factored up by 7%, the relative standard errors of the adjusted estimate were found to be virtually unchanged at 25%, 16%, and 13%, based on 1, 2, and 3 points.

The relative standard errors for segment-level boardings are lower for major segments and somewhat higher than for other measures for the minor segments.

5.2.4 Peak Period Comparisons

Table 3 shows the same set of figures calculated from peak period data only. The results are similar, appearing to be a little bit better on the whole.

5.3 Comparison of Accuracy of Estimates Based on Point Checks versus Ride Checks

The low lost of point checks points to the possibility of doing point checks for several days and making an estimate of average passenger activity based on the average of estimates made for those days. Averaging together samples taken on n days will reduce random error components inversely to the square root of n; systematic error or bias components will be unaffected.

Most of the error in a period-level estimate can be attributed to systematic error (since averaging over many trips eliminates most of the random error), while error in trip-level estimates is a combination of systematic and random estimation error. A reasonable and conservative judgment is to attribute 80% of the period-level squared error to systematic error. The balance of period-level and trip-level error is then the random element of error in period-level and trip-level estimates, respectively.

A second source of random error is day-to-day variation. Based on studies of many transit systems, day-to-day variation of trip-level boardings yields a C.O.V. of around 0.20 or higher while the day-to-day C.O.V. of period-level boardings is around 0.10. The same figures can be applied to passenger-miles.

Based on these assumptions, and using the figures for a typical L/D/TP from Table 2, expected standard errors based on multiple days of updating with point checks using two and three points are calculated for selected items and displayed in Tables 4 and 5. Also displayed for comparison are the standard errors expected from a day of ride checks, i.e., an error-free measurement from a single day used as a daily average.

The results of Tables 4 and 5 show that a single day's estimate using the updating procedure is generally somewhat worse than a single day's measurement using a full ride check, taking a second day of point checks and updating will produce a more accurate estimate in most cases. It should be noted that the differences between one day of ride checks and one day of point checks are relatively small at this aggregate level, especially with three points. For routes that are stable (i.e., with few stop or schedule changes), the accuracy achieved with one day of point checks may equal that with one day of ride checks. On a typical line with, say, a 120 min cycle time and a 10 min headway, a ride check will require 12 checkers, while two days of point checks at two or three points will require 4 or 6 checkers (provided the checkers can monitor both directions), implying better accuracy can be attained for half the cost or less.

TABLE 3
RIDE CHECK UPDATING -- PEAK PERIOD SUMMARY TABLE

NO. TRIPS: 850

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	115.12	367.08	49.51<=	49.51	22.20	8.50
	1	119.15	379.33	44.63	47.57	23.78	8.23
	2	119.13	377.34	46.72	49.80	24.02	8.26
	3	118.23	372.71	47.27	50.39	23.60	8.27
	4	144.47	445.88	51.63	55.04	21.47	6.61
RELATIVE	1	.03	.03	-.10	-.10	.05	-.03
ERROR	2	.03	.03	-.06	.01	.05	-.03
	3	.03	.02	-.05	.02	.03	-.03
	4	.04	.03	-.03	.03	.07	-.08
RELATIVE	1	.09	.08	.11	.11	.12	.13
ABSOLUTE	2	.07	.05	.07	.05	.10	.12
ERROR	3	.05	.04	.06	.05	.08	.10
	4	.06	.04	.04	.04	.07	.16
RELATIVE	1	.31	.29	.25	.25	.10	.20
STANDARD	2	.23	.18	.17	.17	.08	.18
ERROR	3	.19	.14	.14	.14	.07	.17
	4	.19	.12	.11	.12	.08	.19

TABLE 4
EXPECTED STANDARD ERROR FROM MULTIPLE DAY UPDATES USING THREE POINTS

	Sytematic Error	Random Est'n Error	Ride chk C.O.V. = Day-to-day Error	Total Random Error	Expected std error		
					1 day	2 days	3 days
Period Boardings	0.054	0.027	0.080	0.084	0.100	0.080	0.072
Trip Boardings	0.054	0.080	0.200	0.216	0.222	0.162	0.136
Period Pass.-Mi	0.045	0.022	0.080	0.083	0.094	0.074	0.066
Trip Pass.-Mi	0.045	0.058	0.200	0.208	0.213	0.154	0.128
Period Maj. Seg. Brdgs	0.072	0.036	0.120	0.125	0.144	0.114	0.102
Trip Maj. Seg. Brdgs	0.072	0.040	0.400	0.402	0.408	0.293	0.243
Period Min. Seg. Brdgs	0.089	0.045	0.200	0.205	0.224	0.170	0.148
Trip Min. Seg. Brdgs	0.089	0.098	0.500	0.510	0.517	0.371	0.308

* Note: All errors are relative.

TABLE 5
EXPECTED STANDARD ERROR FROM MULTIPLE DAY UPDATES USING TWO POINTS

	Systematic Error	Random Est'n Error	Ride chk C.O.V. = Day-to-day Error	Total Random Error	Expected std error		
					1 day	2 days	3 days
Period Boardings	0.072	0.036	0.080	0.088	0.113	0.095	0.088
Trip Boardings	0.072	0.098	0.200	0.223	0.234	0.173	0.147
Period Pass.-Mi	0.054	0.027	0.080	0.084	0.100	0.080	0.072
Trip Pass.-Mi	0.054	0.076	0.200	0.214	0.221	0.161	0.135
Period Maj. Seg. Brdgs	0.089	0.045	0.120	0.128	0.156	0.127	0.116
Trip Maj. Seg. Brdgs	0.089	0.045	0.400	0.402	0.412	0.298	0.249
Period Min. Seg. Brdgs	0.107	0.054	0.200	0.207	0.233	0.182	0.161
Trip Min. Seg. Brdgs	0.107	0.107	0.500	0.511	0.523	0.377	0.314

* Note: All errors are relative.

6. Conclusions

The purpose of this study has been to evaluate and validate a methodology for updating ride checks with point checks. The study, based on a sample of 9 routes and over 1500 trips, offers the following conclusions.

First, the methodology is sound. It is founded on respected theories of travel behavior and statistical estimation. It is internally consistent, does not rely on parameters that must be repeatedly or locally estimated, and converges in virtually all cases to a unique solution. The final results passes the test of reasonableness, and satisfy the optimization criterion of maximizing likelihood and of minimizing the distance (as measured by an information-theory metric) between a seed matrix and the estimated matrix.

Second, the estimates are accurate. The methodology includes direct observation of ons, offs, and load at a few key points, thereby assuring near perfect accuracy (limited only by measurement error) of these items at key points in which SCRTD has a prior interest. At the time period level, at which most planning and many scheduling decisions are made, average boardings per trip is estimated with no significant estimation bias and with an expected absolute error of 6% with three points. Passenger-mile estimates show similarly small errors when based on three points. Average maximum load (as distinct from peak point load) has a natural underestimation bias of about 7%; after accounting for this, one can expect an absolute error of only 5%, with three points, in estimating average maximum load per trip over a time period when using three points. Segment-level and trip-level estimates display the same absence of significant bias. Their level of error is comparable with other sources of error such as measurement error and day-to-day variation.

Third, the methodology is cost-effective. It will, in most cases, produce estimates that are more accurate than those achieved by the current ride check program at half the cost or less. This conclusion applies to both trip level and period level estimates.

Fourth, the methodology can be easily implemented. Most of the data the programs rely on currently resides in SCRTD computer files, and can be used without modification. The algorithms have been programmed, and a copy of those programs will be delivered to SCRTD shortly. The only new files needed are point check data, which the District has been planning on computerizing for some time. If point checks begin to replace ride checks to some degree, the coding burden will still be rather small since point checks produce only a few data items per trip (ons, offs, arriving and departing load, time, and

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identifiers), as compared with ride checks that can potentially produce several data items at each stop. If electronic data collectors can be used for point check data, the cost will decline further still.

There appear to be two drawbacks to implementing this procedure on a wide scale. The first is that the estimates will of necessity follow the stop list in effect at the time of the seed ride check. Minor changes in stop list can be accomodated by the users of the estimates with little difficulty. More significant changes will require that a new ride check be done; however, ride checks are usually done after significant route changes anyway. Second, the seeds must be updated periodically. Our study used one year old seeds. Using older seeds will probably worsen accuracy levels. Therefore, a comprehensive ride check program cannot be eliminated; rather, instead of doing a system ride check once a year, a four or five year cycle might be substituted.

Can method be easily expanded to more than 3 points?

Documentation of files : proces, source, sample setups, user's guide

Gradient or curve illustrating number of points us error

20-minute time interval accuracy estimates

APPENDIX A

ALGORITHMS FOR REFRESHING A RIDE CHECK WITH POINT CHECK

General Algorithm

1. Estimate O-D matrix from prior ride checks (Subalgorithm 1).

2. Create a compressed O-D matrix by consolidating the stops between each pair of checkpoints into one stop. The checkpoints remain unaffected. Thus, if there are m checkpoints, there will be 2m+1 stops in the consolidated matrix, assuming neither checkpoint is an endpoint. The checkpoints will be even-numbered stops; the segements between checkpoints will be odd-numbered stops. Along the diagonal, even-numbered cells, representing trips beginning and ending at the same stop, are zero. Odd-numbered diagonal cells are not necessarily zero, representing intra-segment travel.

3. Let $TOTINC_O$ = total boardings in the above diagonal cells of the compressed O-D matrix, multiplied by an adjustment factor (default=1). Store the original compressed O-D matrix.

4. (Initial factoring of O-D matrix). Factor the O-D matrix up or down so that the sum of on, off, and thru passengers summed over all checkpoints agrees with the total observed by the point check. (This step can be omitted; it helps the algorithm converge more quickly.)

5. Apply iterative proportional fit (Subalgorithm 2) to make the compressed O-D matrix match the observed on, off, and thru volumes at the checkpoints.

6. Let $TOTINC'$ = total boardings in the above diagonal cells of the (now revised) compressed O-D matrix. Multiply the compressed O-D matrix by the ratio $R = TOTINC'/TOTINC_O$.

7. STOP iterating and go to 8 if R equals 1 (to an acceptable tolerance). Otherwise set $TOTINC_O$ equal to $TOTINC'$, and go to 5.

8. Calculate a compressed O-D matrix of factors. For the above diagonal cells, divide each entry of the estimated compressed O-D matrix by the corresponding entry of the original compressed O-D matrix. For the odd-numbered diagonal cells, which represent intrasegment travel, the factors are the ratio of the estimated to original activity (total boardings plus alightings) on the segment, as follows:

$$(fac)_{jj} = \frac{\sum\limits_{k>j}(est)_{jk} + \sum\limits_{i<j}(est)_{ij}}{\sum\limits_{k>j}(orig)_{jk} + \sum\limits_{i<j}(orig)_{ij}} \quad \text{for } j \text{ odd}$$

where $(fac)_{jj}$ is a factor on the diagonal, and $(est)_{ij}$ and $(orig)_{ij}$ are entries in the estimated and original consolidated O-D matrix, respectively.

9. Multiply each cell of the original (unconsolidated) O-D matrix by the factor in the factor matrix corresponding to that cell. The results are the estimated O-D matrix.

10. Reduce the estimated O-D matrix to row and column totals to produce estimated ons and offs at each stop.

Subalgorithm 1 (Generating an O-D Matrix from On-Off Counts)

Described in Jesse Simon and Peter G. Furth, "Generating a Bus Route O-D Matrix from On-Off Data", Journal of Transportaion Eng., v. 111, n. 6, pp. 583-593, 1985.

Subalgorithm 2 (Iterative Proportional Fit)

Each point check supplies three observations: on, off, and thru volume at a point. Each of these observations corresponds to a block of cells in the matrix. Loop over all checkpoints. For each checkpoint, factor, in turn, the blocks of cells corresponding to on, off, and thru volumes to match the observed volumes. At the end of the loop, STOP if the on, off, and thru volumes in the matrix equal (to a specified tolerance) the point check observations at all points. Otherwise, repeat looping over all checkpoints until convergence.

APPENDIX B

LINE / DIRECTION / TIME PERIOD REPORTS

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------------------------------------------------------------------
    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

    LINE:  30 / DIRECTION:   1 / TIME PERIOD:   1  NO. TRIPS:  11

                NO.                 PASS     MAX ADJ MAX    BRD IN    BRD IN
    MEASURE    POINTS    BRDGS      MILES   LOAD     LOAD   MAJ SEG   OTH SEG
    -------    ------    ------     ------   ------  ------  -------   -------
    MEAN        OBS      52.36     144.19   33.45<= 33.45    9.36      1.84
                 1       58.59     159.98   32.91   35.08   10.49      1.79
                 2       56.05     150.95   32.65   34.80   10.28      1.65
                 3       52.72     140.66   32.77   34.94   10.26      1.32
                 4       52.65     142.65   32.75   34.91   10.25      1.32

    RELATIVE     1        .12        .11    -.02    -.02     .12       -.03
    ERROR        2        .07        .05    -.02     .04     .10       -.11
                 3        .01       -.02    -.02     .04     .10       -.28
                 4        .01       -.01    -.02     .04     .09       -.28

    RELATIVE     1        .12        .11     .02     .02     .12        .03
    ABSOLUTE     2        .07        .05     .02     .04     .10        .11
    ERROR        3        .01        .02     .02     .04     .10        .28
                 4        .01        .01     .02     .04     .09        .28

    RELATIVE     1        .48        .41     .14     .14     .19        .60
    STANDARD     2        .22        .11     .06     .06     .16        .50
    ERROR        3        .13        .08     .06     .06     .16        .49
                 4        .14        .09     .06     .06     .12        .49
    ------------------------------------------------------------------


    ------------------------------------------------------------------
    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

    LINE:  30 / DIRECTION:   3 / TIME PERIOD:   1  NO. TRIPS:   9

                NO.                 PASS     MAX ADJ MAX    BRD IN    BRD IN
    MEASURE    POINTS    BRDGS      MILES   LOAD     LOAD   MAJ SEG   OTH SEG
    -------    ------    ------     ------   ------  ------  -------   -------
    MEAN        OBS      33.22     100.16   16.89<= 16.89    6.00      1.61
                 1       38.00     104.60   17.04   18.16    7.13      2.25
                 2       39.17     108.27   18.35   19.56    7.14      2.65
                 3       28.29      74.30   14.36   15.30    5.82      1.80
                 4       37.97     103.16   19.57   20.86    8.02      2.59

    RELATIVE     1        .14        .04     .01     .01     .19        .40
    ERROR        2        .18        .08     .09     .16     .19        .65
                 3       -.15       -.26    -.15    -.09    -.03        .12
                 4        .14        .03     .16     .24     .34        .61

    RELATIVE     1        .14        .04     .01     .01     .19        .40
    ABSOLUTE     2        .18        .08     .09     .16     .19        .65
    ERROR        3        .15        .26     .15     .09     .03        .12
                 4        .14        .03     .16     .24     .34        .61

    RELATIVE     1        .78        .48     .65     .65     .21        .47
    STANDARD     2        .58        .27     .36     .40     .21        .29
    ERROR        3        .27        .22     .29     .29     .20        .26
                 4        .27        .08     .29     .37     .09        .31
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  30 / DIRECTION:   1 / TIME PERIOD:   2  NO. TRIPS:  54
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	110.87	252.89	55.30(=	55.30	19.67	4.03
	1	112.16	253.20	53.87	57.43	20.48	3.39
	2	113.05	256.70	53.98	57.54	20.49	3.53
	3	110.80	252.11	53.94	57.50	20.49	3.31
	4	112.76	254.03	54.17	57.74	20.95	3.32
RELATIVE	1	.01	.00	-.03	-.03	.04	-.16
ERROR	2	.02	.02	-.02	.04	.04	-.12
	3	.00	.00	-.02	.04	.04	-.18
	4	.02	.00	-.02	.04	.07	-.18
RELATIVE	1	.01	.00	.03	.03	.04	.16
ABSOLUTE	2	.02	.02	.02	.04	.04	.12
ERROR	3	.00	.00	.02	.04	.04	.18
	4	.02	.00	.02	.04	.07	.18
RELATIVE	1	.19	.26	.05	.05	.07	.23
STANDARD	2	.17	.17	.05	.06	.07	.21
ERROR	3	.16	.14	.04	.06	.07	.21
	4	.15	.09	.04	.06	.06	.21

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  30 / DIRECTION:   3 / TIME PERIOD:   2  NO. TRIPS:  50
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	115.58	276.83	50.38(=	50.38	22.66	5.21
	1	135.63	336.63	52.09	55.52	23.45	5.70
	2	130.97	323.98	51.64	55.05	22.87	5.53
	3	130.06	320.11	51.21	54.59	22.73	5.39
	4	133.67	325.51	51.88	55.31	23.59	5.43
RELATIVE	1	.17	.22	.03	.03	.03	.09
ERROR	2	.13	.17	.03	.09	.01	.06
	3	.13	.16	.02	.08	.00	.03
	4	.16	.18	.03	.10	.04	.04
RELATIVE	1	.17	.22	.03	.03	.03	.09
ABSOLUTE	2	.13	.17	.03	.09	.01	.06
ERROR	3	.13	.16	.02	.08	.00	.03
	4	.16	.18	.03	.10	.04	.04
RELATIVE	1	.38	.37	.40	.40	.08	.11
STANDARD	2	.23	.18	.20	.21	.07	.09
ERROR	3	.21	.15	.19	.19	.07	.09
	4	.20	.12	.16	.18	.05	.09

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  30 / DIRECTION:   1 / TIME PERIOD:   3  NO. TRIPS:  45

                NO.                 PASS    MAX ADJ MAX   BRD IN   BRD IN
  MEASURE      POINTS   BRDGS      MILES   LOAD    LOAD   MAJ SEG  OTH SEG
  -------      ------   ------     ------  ------  ------ -------  -------
  MEAN          OBS     114.89    269.78  40.64<= 40.64   17.12     5.57
                 1      107.98    246.74  33.36   35.57   16.88     4.16
                 2      113.94    263.96  36.74   39.16   17.13     4.67
                 3      110.24    256.65  36.74   39.17   17.19     4.27
                 4      114.45    262.72  38.13   40.65   18.20     4.29

  RELATIVE       1      -.06       -.09    -.18    -.18    -.01     -.25
  ERROR          2      -.01       -.02    -.10    -.04     .00     -.16
                 3      -.04       -.05    -.10    -.04     .00     -.23
                 4       .00       -.03    -.06     .00     .06     -.23

  RELATIVE       1       .06        .09     .18     .18     .01      .25
  ABSOLUTE       2       .01        .02     .10     .04     .00      .16
  ERROR          3       .04        .05     .10     .04     .00      .23
                 4       .00        .03     .06     .00     .06      .23

  RELATIVE       1       .28        .23     .25     .25     .08      .22
  STANDARD       2       .19        .13     .14     .12     .08      .19
  ERROR          3       .19        .13     .14     .12     .08      .19
                 4       .15        .10     .11     .10     .06      .18
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  30 / DIRECTION:   3 / TIME PERIOD:   3  NO. TRIPS:  46

                NO.                 PASS    MAX ADJ MAX   BRD IN   BRD IN
  MEASURE      POINTS   BRDGS      MILES   LOAD    LOAD   MAJ SEG  OTH SEG
  -------      ------   ------     ------  ------  ------ -------  -------
  MEAN          OBS     105.24    234.12  36.61<= 36.61   15.46     5.65
                 1      103.76    226.75  29.51   31.46   12.79     5.74
                 2      104.48    228.70  31.31   33.38   12.81     5.92
                 3      104.46    223.24  31.23   33.29   13.53     5.65
                 4      106.30    226.82  33.28   35.47   14.30     5.65

  RELATIVE       1      -.01       -.03    -.19    -.19    -.17      .02
  ERROR          2      -.01       -.02    -.14    -.09    -.17      .05
                 3      -.01       -.05    -.15    -.09    -.13      .00
                 4       .01       -.03    -.09    -.03    -.08      .00

  RELATIVE       1       .01        .03     .19     .19     .17      .02
  ABSOLUTE       2       .01        .02     .14     .09     .17      .05
  ERROR          3       .01        .05     .15     .09     .13      .00
                 4       .01        .03     .09     .03     .08      .00

  RELATIVE       1       .33        .30     .37     .37     .11      .12
  STANDARD       2       .22        .16     .24     .22     .11      .10
  ERROR          3       .21        .15     .24     .21     .10      .10
                 4       .15        .10     .17     .15     .06      .10
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  30 / DIRECTION:   1 / TIME PERIOD:   4  NO. TRIPS:  59
```

| | NO. | | PASS | MAX | ADJ MAX | BRD IN | BRD IN |
MEASURE	POINTS	BRDGS	MILES	LOAD	LOAD	MAJ SEG	OTH SEG
MEAN	OBS	131.25	319.70	50.37<=	50.37	18.12	6.88
	1	134.52	307.50	41.17	43.89	20.22	5.47
	2	137.90	315.73	43.25	46.11	20.38	5.73
	3	133.45	307.58	42.54	45.35	19.83	5.50
	4	138.19	314.14	44.92	47.88	20.84	5.57
RELATIVE	1	.02	-.04	-.18	-.18	.12	-.21
ERROR	2	.05	-.01	-.14	-.08	.12	-.17
	3	.02	-.04	-.16	-.10	.09	-.20
	4	.05	-.02	-.11	-.05	.15	-.19
RELATIVE	1	.02	.04	.18	.18	.12	.21
ABSOLUTE	2	.05	.01	.14	.08	.12	.17
ERROR	3	.02	.04	.16	.10	.09	.20
	4	.05	.02	.11	.05	.15	.19
RELATIVE	1	.33	.28	.37	.37	.08	.16
STANDARD	2	.22	.13	.22	.19	.07	.14
ERROR	3	.21	.14	.21	.18	.06	.14
	4	.17	.09	.15	.12	.05	.14

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  30 / DIRECTION:   3 / TIME PERIOD:   4  NO. TRIPS:  65
```

| | NO. | | PASS | MAX | ADJ MAX | BRD IN | BRD IN |
MEASURE	POINTS	BRDGS	MILES	LOAD	LOAD	MAJ SEG	OTH SEG
MEAN	OBS	117.94	260.26	51.43<=	51.43	18.73	5.71
	1	120.62	262.51	47.14	50.25	17.14	7.61
	2	121.87	262.60	47.64	50.78	17.16	7.68
	3	121.19	257.09	47.74	50.89	18.05	7.23
	4	123.83	259.99	49.30	52.56	19.10	7.23
RELATIVE	1	.02	.01	-.08	-.08	-.08	.33
ERROR	2	.03	.01	-.07	-.01	-.08	.35
	3	.03	-.01	-.07	-.01	-.04	.27
	4	.05	.00	-.04	.02	.02	.27
RELATIVE	1	.02	.01	.08	.08	.08	.33
ABSOLUTE	2	.03	.01	.07	.01	.08	.35
ERROR	3	.03	.01	.07	.01	.04	.27
	4	.05	.00	.04	.02	.02	.27
RELATIVE	1	.31	.27	.14	.14	.08	.12
STANDARD	2	.24	.15	.12	.11	.08	.09
ERROR	3	.23	.14	.12	.11	.08	.09
	4	.18	.10	.07	.07	.05	.09

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     ------------------------------------------------------------------
      RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

     LINE:  30 / DIRECTION:   1 / TIME PERIOD:   5  NO. TRIPS:  23

                   NO.                  PASS    MAX ADJ MAX   BRD IN    BRD IN
     MEASURE      POINTS    BRDGS      MILES    LOAD    LOAD   MAJ SEG   OTH SEG
     -------      ------    ------     ------   ------  ------  -------   -------
     MEAN          OBS      73.61     173.52   29.57(= 29.57   12.93      2.47
                    1       67.94     163.31   22.33   23.80   12.36      1.86
                    2       71.20     171.55   24.70   26.33   12.57      2.10
                    3       69.94     168.56   24.76   26.39   12.61      1.96
                    4       70.73     169.65   26.27   28.00   12.83      1.95

     RELATIVE       1       -.08       -.06     -.24    -.24    -.04      -.25
     ERROR          2       -.03       -.01     -.16    -.11    -.03      -.15
                    3       -.05       -.03     -.16    -.11    -.03      -.21
                    4       -.04       -.02     -.11    -.05    -.01      -.21

     RELATIVE       1        .08        .06      .24     .24     .04       .25
     ABSOLUTE       2        .03        .01      .16     .11     .03       .15
     ERROR          3        .05        .03      .16     .11     .03       .21
                    4        .04        .02      .11     .05     .01       .21

     RELATIVE       1        .31        .32      .44     .44     .12       .59
     STANDARD       2        .26        .20      .34     .32     .12       .60
     ERROR          3        .25        .19      .32     .30     .12       .60
                    4        .14        .08      .20     .16     .09       .60
     ------------------------------------------------------------------


     ------------------------------------------------------------------
      RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

     LINE:  30 / DIRECTION:   3 / TIME PERIOD:   5  NO. TRIPS:  27

                   NO.                  PASS    MAX ADJ MAX   BRD IN    BRD IN
     MEASURE      POINTS    BRDGS      MILES    LOAD    LOAD   MAJ SEG   OTH SEG
     -------      ------    ------     ------   ------  ------  -------   -------
     MEAN          OBS      65.07     165.39   32.67(= 32.67    9.50      3.38
                    1       69.27     167.67   29.16   31.09    9.61      3.86
                    2       67.00     161.74   29.24   31.17    9.69      3.53
                    3       66.21     155.86   29.13   31.05    9.82      3.36
                    4       69.00     161.08   31.42   33.49   10.20      3.52

     RELATIVE       1        .06        .01     -.11    -.11     .01       .14
     ERROR          2        .03       -.02     -.10    -.05     .02       .04
                    3        .02       -.06     -.11    -.05     .03      -.01
                    4        .06       -.03     -.04     .03     .07       .04

     RELATIVE       1        .06        .01      .11     .11     .01       .14
     ABSOLUTE       2        .03        .02      .10     .05     .02       .04
     ERROR          3        .02        .06      .11     .05     .03       .01
                    4        .06        .03      .04     .03     .07       .04

     RELATIVE       1        .31        .30      .19     .19     .12       .28
     STANDARD       2        .23        .20      .19     .17     .11       .29
     ERROR          3        .24        .19      .19     .17     .08       .30
                    4        .17        .11      .08     .08     .06       .29
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----------------------------------------------------------------
     RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  45 / DIRECTION:  1 / TIME PERIOD:  1  NO. TRIPS:   8
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	34.75	133.26	24.00(=	24.00	4.84	1.76
	1	33.80	127.01	22.84	24.34	4.62	1.21
	2	34.74	130.70	23.19	24.72	4.62	1.33
	3	35.67	134.87	23.17	24.70	4.62	1.52
	4	39.47	149.07	25.27	26.94	5.67	1.87
RELATIVE	1	-.03	-.05	-.05	-.05	-.05	-.31
ERROR	2	.00	-.02	-.03	.03	-.05	-.24
	3	.03	.01	-.03	.03	-.05	-.14
	4	.14	.12	.05	.12	.17	.06
RELATIVE	1	.03	.05	.05	.05	.05	.31
ABSOLUTE	2	.00	.02	.03	.03	.05	.24
ERROR	3	.03	.01	.03	.03	.05	.14
	4	.14	.12	.05	.12	.17	.06
RELATIVE	1	.17	.18	.09	.09	.28	.82
STANDARD	2	.18	.16	.08	.07	.28	.83
ERROR	3	.13	.14	.08	.07	.28	.67
	4	.06	.09	.08	.07	.17	.54

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----------------------------------------------------------------


----------------------------------------------------------------
     RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  45 / DIRECTION:  3 / TIME PERIOD:  1  NO. TRIPS:   4
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	16.50	85.10	13.50(=	13.50	3.57	.44
	1	18.90	81.85	13.87	14.79	2.65	.25
	2	28.05	120.35	21.75	23.19	5.75	.46
	3	27.75	117.60	21.70	23.13	5.65	.47
	4	.	.	.	.	.	.
RELATIVE	1	.15	-.04	.03	.03	-.26	-.44
ERROR	2	.70	.41	.61	.72	.61	.03
	3	.68	.38	.61	.71	.58	.05
	4	.	.	.	.	.	.
RELATIVE	1	.15	.04	.03	.03	.26	.44
ABSOLUTE	2	.70	.41	.61	.72	.61	.03
ERROR	3	.68	.38	.61	.71	.58	.05
	4	.	.	.	.	.	.
RELATIVE	1	.25	.13	.08	.08	.36	.69
STANDARD	2	.19	.15	.06	.17	.25	.65
ERROR	3	.17	.16	.05	.16	.27	.62
	4	.	.	.	.	.	.

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  45 / DIRECTION:   1 / TIME PERIOD:   2  NO. TRIPS:  42

                  NO.                 PASS     MAX ADJ MAX    BRD IN    BRD IN
  MEASURE       POINTS    BRDGS      MILES    LOAD    LOAD   MAJ SEG   OTH SEG
  -------       ------    ------     ------   ------  ------  -------   -------
  MEAN            OBS     112.24     363.22   57.83<= 57.83   14.50      6.35
                   1      105.01     366.24   54.78   58.40   17.04      5.07
                   2      109.87     373.79   54.79   58.41   17.04      5.76
                   3      107.85     365.37   55.23   58.87   17.04      5.35
                   4      108.01     361.30   56.19   59.90   17.03      5.37

  RELATIVE         1       -.06        .01    -.05    -.05     .18       -.20
  ERROR            2       -.02        .03    -.05     .01     .18       -.09
                   3       -.04        .01    -.05     .02     .18       -.16
                   4       -.04       -.01    -.03     .04     .17       -.15

  RELATIVE         1        .06        .01     .05     .05     .18        .20
  ABSOLUTE         2        .02        .03     .05     .01     .18        .09
  ERROR            3        .04        .01     .05     .02     .18        .16
                   4        .04        .01     .03     .04     .17        .15

  RELATIVE         1        .23        .16     .09     .09     .07        .19
  STANDARD         2        .24        .16     .09     .08     .07        .16
  ERROR            3        .19        .12     .08     .07     .07        .15
                   4        .19        .12     .06     .08     .07        .14
  --------------------------------------------------------------


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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  45 / DIRECTION:   3 / TIME PERIOD:   2  NO. TRIPS:  24

                  NO.                 PASS     MAX ADJ MAX    BRD IN    BRD IN
  MEASURE       POINTS    BRDGS      MILES    LOAD    LOAD   MAJ SEG   OTH SEG
  -------       ------    ------     ------   ------  ------  -------   -------
  MEAN            OBS     137.96     367.70   57.00<= 57.00   21.26      6.82
                   1      114.87     308.85   43.21   46.06     .        4.59
                   2      124.85     331.41   49.80   53.09     .        4.75
                   3      133.90     350.29   56.38   60.10     .        4.73
                   4      137.31     356.49   56.73   60.48     .        5.12

  RELATIVE         1       -.17       -.16    -.24    -.24     .        -.33
  ERROR            2       -.10       -.10    -.13    -.07     .        -.30
                   3       -.03       -.05    -.01     .05     .        -.31
                   4        .00       -.03     .00     .06     .        -.25

  RELATIVE         1        .17        .16     .24     .24     .         .33
  ABSOLUTE         2        .10        .10     .13     .07     .         .30
  ERROR            3        .03        .05     .01     .05     .         .31
                   4        .00        .03     .00     .06     .         .25

  RELATIVE         1        .35        .28     .40     .40     .         .32
  STANDARD         2        .30        .20     .30     .30     .         .29
  ERROR            3        .19        .15     .16     .18     .         .29
                   4        .22        .15     .16     .19     .         .27
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  45 / DIRECTION:   1 / TIME PERIOD:   3  NO. TRIPS:  36

             NO.              PASS     MAX ADJ MAX   BRD IN   BRD IN
MEASURE    POINTS   BRDGS    MILES    LOAD    LOAD  MAJ SEG  OTH SEG
-------    ------   -----    -----    ----    ----  -------  -------
MEAN         OBS   107.39   278.17   40.19(= 40.19   10.38     7.75
              1     98.24   266.62   33.05   35.23   10.91     6.22
              2    104.52   275.78   36.59   39.01   11.70     6.76
              3    104.77   277.26   37.72   40.21   11.72     6.39
              4    103.48   270.45   37.50   39.97   11.76     6.26

RELATIVE      1     -.09     -.04    -.18    -.18     .05      -.20
ERROR         2     -.03     -.01    -.09    -.03     .13      -.13
              3     -.02      .00    -.06     .00     .13      -.18
              4     -.04     -.03    -.07    -.01     .13      -.19

RELATIVE      1      .09      .04     .18     .18     .05       .20
ABSOLUTE      2      .03      .01     .09     .03     .13       .13
ERROR         3      .02      .00     .06     .00     .13       .18
              4      .04      .03     .07     .01     .13       .19

RELATIVE      1      .26      .20     .27     .27     .07       .32
STANDARD      2      .16      .15     .18     .17     .06       .28
ERROR         3      .13      .10     .11     .09     .06       .27
              4      .12      .08     .11     .09     .05       .18
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  45 / DIRECTION:   3 / TIME PERIOD:   3  NO. TRIPS:  36

             NO.              PASS     MAX ADJ MAX   BRD IN   BRD IN
MEASURE    POINTS   BRDGS    MILES    LOAD    LOAD  MAJ SEG  OTH SEG
-------    ------   -----    -----    ----    ----  -------  -------
MEAN         OBS   108.11   276.89   40.14(= 40.14   14.87     5.98
              1     93.06   277.52   31.42   33.49   17.32     4.78
              2     99.47   289.04   35.30   37.63   19.56     4.88
              3     99.90   287.82   37.48   39.96   19.34     4.90
              4    100.83   285.82   38.50   41.04   19.32     4.79

RELATIVE      1     -.14      .00    -.22    -.22     .17      -.20
ERROR         2     -.08      .04    -.12    -.06     .32      -.18
              3     -.08      .04    -.07     .00     .30      -.18
              4     -.07      .03    -.04     .02     .30      -.20

RELATIVE      1      .14      .00     .22     .22     .17       .20
ABSOLUTE      2      .08      .04     .12     .06     .32       .18
ERROR         3      .08      .04     .07     .00     .30       .18
              4      .07      .03     .04     .02     .30       .20

RELATIVE      1      .32      .27     .30     .30     .11       .62
STANDARD      2      .23      .23     .22     .20     .08       .61
ERROR         3      .14      .13     .13     .12     .06       .62
              4      .13      .09     .10     .10     .06       .61
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             RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

         LINE:  45 / DIRECTION:   1 / TIME PERIOD:   4  NO. TRIPS:   34

                        NO.                    PASS      MAX ADJ MAX   BRD IN    BRD IN
         MEASURE       POINTS    BRDGS        MILES     LOAD    LOAD   MAJ SEG   OTH SEG
         -------       ------    ------       ------   ------  ------  -------   -------
         MEAN          OBS      151.32       427.83    57.50<= 57.50   16.57       9.24
                         1      151.96       460.14    51.03   54.40     .         6.78
                         2      142.18       430.39    50.49   53.82     .         6.01
                         3      145.33       430.39    53.87   57.42     .         6.62
                         4      147.95       429.61    54.23   57.81     .         6.74

         RELATIVE         1        .00          .08     -.11    -.11     .          -.27
         ERROR            2       -.06          .01     -.12    -.06     .          -.35
                          3       -.04          .01     -.06     .00     .          -.28
                          4       -.02          .00     -.06     .01     .          -.27

         RELATIVE         1        .00          .08      .11     .11     .           .27
         ABSOLUTE         2        .06          .01      .12     .06     .           .35
         ERROR            3        .04          .01      .06     .00     .           .28
                          4        .02          .00      .06     .01     .           .27

         RELATIVE         1        .42          .38      .37     .37     .           .20
         STANDARD         2        .24          .21      .19     .17     .           .23
         ERROR            3        .19          .14      .11     .10     .           .11
                          4        .14          .08      .11     .10     .           .10
         ------------------------------------------------------------------


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             RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

         LINE:  45 / DIRECTION:   3 / TIME PERIOD:   4  NO. TRIPS:   41

                        NO.                    PASS      MAX ADJ MAX   BRD IN    BRD IN
         MEASURE       POINTS    BRDGS        MILES     LOAD    LOAD   MAJ SEG   OTH SEG
         -------       ------    ------       ------   ------  ------  -------   -------
         MEAN          OBS      122.98       370.77    57.39<= 57.39   18.07       6.62
                         1      107.05       379.83    52.67   56.15     .         3.69
                         2      112.56       388.17    53.50   57.03     .         3.69
                         3      112.77       387.07    53.86   57.42     .         3.62
                         4      130.64       398.93    53.83   57.38     .         4.54

         RELATIVE         1       -.13          .02     -.08    -.08     .          -.44
         ERROR            2       -.08          .05     -.07    -.01     .          -.44
                          3       -.08          .04     -.06     .00     .          -.45
                          4        .06          .08     -.06     .00     .          -.31

         RELATIVE         1        .13          .02      .08     .08     .           .44
         ABSOLUTE         2        .08          .05      .07     .01     .           .44
         ERROR            3        .08          .04      .06     .00     .           .45
                          4        .06          .08      .06     .00     .           .31

         RELATIVE         1        .25          .17      .14     .14     .           .18
         STANDARD         2        .22          .16      .12     .11     .           .18
         ERROR            3        .20          .14      .12     .11     .           .17
                          4        .20          .13      .11     .11     .           .14
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  45 / DIRECTION:   1 / TIME PERIOD:   5  NO. TRIPS:  16

                  NO.              PASS    MAX ADJ MAX   BRD IN    BRD IN
MEASURE        POINTS   BRDGS     MILES   LOAD    LOAD   MAJ SEG   OTH SEG
-------        ------   ------    ------  ------  ------  -------   -------
MEAN              OBS   48.13    169.43  21.06(= 21.06    5.84      2.51
                    1   53.34    184.86  19.37   20.65    5.74      3.05
                    2   48.06    164.12  16.92   18.04    4.97      2.82
                    3   46.41    155.07  17.58   18.74    4.82      2.72
                    4   53.54    177.77  20.03   21.35    5.76      3.05

RELATIVE            1     .11       .09   -.08    -.08    -.02       .22
ERROR              2     .00      -.03   -.20    -.14    -.15       .13
                    3    -.04      -.08   -.17    -.11    -.18       .09
                    4     .11       .05   -.05     .01    -.02       .22

RELATIVE            1     .11       .09    .08     .08     .02       .22
ABSOLUTE           2     .00       .03    .20     .14     .15       .13
ERROR              3     .04       .08    .17     .11     .18       .09
                    4     .11       .05    .05     .01     .02       .22

RELATIVE            1     .27       .21    .24     .24     .18       .29
STANDARD           2     .20       .20    .32     .29     .18       .32
ERROR              3     .19       .17    .28     .25     .18       .32
                    4     .20       .16    .25     .23     .15       .29
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  45 / DIRECTION:   3 / TIME PERIOD:   5  NO. TRIPS:  18

                  NO.              PASS    MAX ADJ MAX   BRD IN    BRD IN
MEASURE        POINTS   BRDGS     MILES   LOAD    LOAD   MAJ SEG   OTH SEG
-------        ------   ------    ------  ------  ------  -------   -------
MEAN              OBS   66.94    247.59  40.00(= 40.00   10.08      2.43
                    1   76.92    272.02  37.13   39.58   10.99      2.58
                    2   77.89    273.18  38.09   40.61   12.52      2.55
                    3   77.06    271.40  38.08   40.60   12.57      2.55
                    4   76.93    271.02  38.41   40.95   12.57      2.55

RELATIVE            1     .15       .10   -.07    -.07     .09       .06
ERROR              2     .16       .10   -.05     .02     .24       .05
                    3     .15       .10   -.05     .01     .25       .05
                    4     .15       .09   -.04     .02     .25       .05

RELATIVE            1     .15       .10    .07     .07     .09       .06
ABSOLUTE           2     .16       .10    .05     .02     .24       .05
ERROR              3     .15       .10    .05     .01     .25       .05
                    4     .15       .09    .04     .02     .25       .05

RELATIVE            1     .25       .17    .10     .10     .12       .26
STANDARD           2     .25       .18    .07     .05     .07       .23
ERROR              3     .24       .14    .07     .05     .07       .24
                    4     .25       .14    .07     .06     .07       .23
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  53 / DIRECTION:   1 / TIME PERIOD:   1  NO. TRIPS:   6

              NO.               PASS     MAX ADJ MAX   BRD IN   BRD IN
  MEASURE   POINTS    BRDGS     MILES    LOAD    LOAD  MAJ SEG  OTH SEG
  -------   ------    -----     -----    ----    ----  -------  -------
  MEAN       OBS      60.17    238.45   45.67<= 45.67   15.22     2.07
              1       55.35    237.92   44.52   47.45   14.26     1.80
              2       55.83    238.90   44.72   47.67   14.44     1.79
              3       55.75    235.32   44.72   47.67   14.49     1.75
              4         .         .       .       .       .        .

  RELATIVE     1       -.08      .00    -.03    -.03    -.06     -.13
  ERROR        2       -.07      .00    -.02     .04    -.05     -.14
               3       -.07     -.01    -.02     .04    -.05     -.15
               4         .        .       .       .       .        .

  RELATIVE     1        .08      .00     .03     .03     .06      .13
  ABSOLUTE     2        .07      .00     .02     .04     .05      .14
  ERROR        3        .07      .01     .02     .04     .05      .15
               4         .        .       .       .       .        .

  RELATIVE     1        .14      .08     .05     .05     .13      .48
  STANDARD     2        .11      .07     .05     .07     .11      .48
  ERROR        3        .11      .03     .05     .07     .07      .49
               4         .        .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  53 / DIRECTION:   3 / TIME PERIOD:   1  NO. TRIPS:   5

              NO.               PASS     MAX ADJ MAX   BRD IN   BRD IN
  MEASURE   POINTS    BRDGS     MILES    LOAD    LOAD  MAJ SEG  OTH SEG
  -------   ------    -----     -----    ----    ----  -------  -------
  MEAN       OBS      67.40    253.04   28.00<= 28.00   14.07     4.20
              1       59.38    255.64   27.82   29.66   12.07     3.86
              2       54.04    223.74   25.78   27.48   10.37     3.82
              3       59.28    239.02   28.90   30.81   12.05     3.86
              4         .         .       .       .       .        .

  RELATIVE     1       -.12      .01    -.01    -.01    -.14     -.08
  ERROR        2       -.20     -.12    -.08    -.02    -.26     -.09
               3       -.12     -.06     .03     .10    -.14     -.08
               4         .        .       .       .       .        .

  RELATIVE     1        .12      .01     .01     .01     .14      .08
  ABSOLUTE     2        .20      .12     .08     .02     .26      .09
  ERROR        3        .12      .06     .03     .10     .14      .08
               4         .        .       .       .       .        .

  RELATIVE     1        .33      .29     .43     .43     .20      .84
  STANDARD     2        .25      .13     .21     .22     .21      .90
  ERROR        3        .17      .12     .07     .13     .12      .85
               4         .        .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  53 / DIRECTION:   1 / TIME PERIOD:   2  NO. TRIPS:  23
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	121.09	384.62	64.57<=	64.57	28.41	5.12
	1	126.65	430.15	62.09	66.18	30.69	4.94
	2	119.45	405.23	61.32	65.37	29.12	4.58
	3	114.72	384.36	61.27	65.31	27.90	4.43
	4	.	.	.	.	.	.
RELATIVE	1	.05	.12	-.04	-.04	.08	-.04
ERROR	2	-.01	.05	-.05	.01	.03	-.11
	3	-.05	.00	-.05	.01	-.02	-.14
	4	.	.	.	.	.	.
RELATIVE	1	.05	.12	.04	.04	.08	.04
ABSOLUTE	2	.01	.05	.05	.01	.03	.11
ERROR	3	.05	.00	.05	.01	.02	.14
	4	.	.	.	.	.	.
RELATIVE	1	.26	.24	.09	.09	.07	.33
STANDARD	2	.22	.16	.08	.07	.06	.33
ERROR	3	.16	.07	.08	.07	.04	.33
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  53 / DIRECTION:   3 / TIME PERIOD:   2  NO. TRIPS:  13
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	145.69	403.14	53.54<=	53.54	30.44	9.06
	1	161.88	496.58	55.56	59.23	34.60	9.68
	2	157.38	474.92	55.32	58.97	33.19	9.64
	3	140.96	416.95	51.07	54.44	27.94	9.52
	4	.	.	.	.	.	.
RELATIVE	1	.11	.23	.04	.04	.14	.07
ERROR	2	.08	.18	.03	.10	.09	.06
	3	-.03	.03	-.05	.02	-.08	.05
	4	.	.	.	.	.	.
RELATIVE	1	.11	.23	.04	.04	.14	.07
ABSOLUTE	2	.08	.18	.03	.10	.09	.06
ERROR	3	.03	.03	.05	.02	.08	.05
	4	.	.	.	.	.	.
RELATIVE	1	.27	.29	.22	.22	.14	.19
STANDARD	2	.17	.24	.13	.17	.10	.19
ERROR	3	.14	.11	.09	.08	.08	.21
	4	.	.	.	.	.	.

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

   LINE:  53 / DIRECTION:  1 / TIME PERIOD:  3  NO. TRIPS:  13

                NO.              PASS     MAX ADJ MAX   BRD IN   BRD IN
   MEASURE    POINTS   BRDGS    MILES    LOAD    LOAD  MAJ SEG  OTH SEG
   -------    ------   ------   ------   ------  ------ -------  -------
   MEAN        OBS    135.00   417.45   55.69<= 55.69   33.00     5.14
                1     136.26   428.28   47.70   50.85   34.53     4.67
                2     146.65   461.21   54.60   58.20   37.09     5.05
                3     133.71   425.20   53.70   57.24   33.39     4.79
                4      .         .        .       .       .         .

   RELATIVE      1     .01       .03    -.14    -.14     .05      -.09
   ERROR         2     .09       .10    -.02     .05     .12      -.02
                 3    -.01       .02    -.04     .03     .01      -.07
                 4     .         .        .       .       .         .

   RELATIVE      1     .01       .03     .14     .14     .05       .09
   ABSOLUTE      2     .09       .10     .02     .05     .12       .02
   ERROR         3     .01       .02     .04     .03     .01       .07
                 4     .         .        .       .       .         .

   RELATIVE      1     .24       .21     .30     .30     .10       .33
   STANDARD      2     .22       .16     .18     .19     .08       .33
   ERROR         3     .14       .07     .07     .06     .06       .32
                 4     .         .        .       .       .         .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

   LINE:  53 / DIRECTION:  3 / TIME PERIOD:  3  NO. TRIPS:  11

                NO.              PASS     MAX ADJ MAX   BRD IN   BRD IN
   MEASURE    POINTS   BRDGS    MILES    LOAD    LOAD  MAJ SEG  OTH SEG
   -------    ------   ------   ------   ------  ------ -------  -------
   MEAN        OBS    123.73   407.94   51.00<= 51.00   25.24     8.00
                1     145.75   452.76   47.46   50.60   31.43     8.58
                2     141.37   433.75   47.75   50.90   30.04     8.54
                3     136.14   410.75   48.56   51.77   28.41     8.49
                4      .         .        .       .       .         .

   RELATIVE      1     .18       .11    -.07    -.07     .25       .07
   ERROR         2     .14       .06    -.06     .00     .19       .07
                 3     .10       .01    -.05     .02     .13       .06
                 4     .         .        .       .       .         .

   RELATIVE      1     .18       .11     .07     .07     .25       .07
   ABSOLUTE      2     .14       .06     .06     .00     .19       .07
   ERROR         3     .10       .01     .05     .02     .13       .06
                 4     .         .        .       .       .         .

   RELATIVE      1     .26       .19     .13     .13     .12       .18
   STANDARD      2     .26       .15     .13     .13     .11       .19
   ERROR         3     .17       .10     .09     .08     .09       .19
                 4     .         .        .       .       .         .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  53 / DIRECTION:   1 / TIME PERIOD:   4  NO. TRIPS:  25

              NO.                PASS    MAX ADJ MAX   BRD IN   BRD IN
MEASURE       POINTS    BRDGS    MILES   LOAD    LOAD  MAJ SEG  OTH SEG
-------       ------    -----    -----   ----    ----  -------  -------
MEAN          OBS       114.14   317.92  51.86(= 51.86  25.75    5.52
              1        '140.26   354.70  44.27   47.19  47.02    1.75
              2         136.04   343.84  49.10   52.34  45.43    1.75
              3         124.29   308.69  49.15   52.39  38.47    1.75
              4           .        .       .       .      .        .

RELATIVE      1           .23      .12    -.15    -.15    .83     -.68
ERROR         2           .19      .08    -.05     .01    .76     -.68
              3           .09     -.03    -.05     .01    .49     -.68
              4           .        .       .       .      .        .

RELATIVE      1           .23      .12     .15     .15    .83      .68
ABSOLUTE      2           .19      .08     .05     .01    .76      .68
ERROR         3           .09      .03     .05     .01    .49      .68
              4           .        .       .       .      .        .

RELATIVE      1           .31      .32     .24     .24    .09      .37
STANDARD      2           .27      .24     .12     .13    .08      .36
ERROR         3           .22      .09     .12     .12    .06      .36
              4           .        .       .       .      .        .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  53 / DIRECTION:   3 / TIME PERIOD:   4  NO. TRIPS:  32

              NO.                PASS    MAX ADJ MAX   BRD IN   BRD IN
MEASURE       POINTS    BRDGS    MILES   LOAD    LOAD  MAJ SEG  OTH SEG
-------       ------    -----    -----   ----    ----  -------  -------
MEAN          OBS       112.47   337.59  55.70(= 55.70  23.57    7.42
              1         103.41   344.77  53.24   56.76  20.33    7.61
              2         105.29   346.32  54.84   58.46  20.83    7.68
              3         103.53   340.22  54.93   58.55  20.87    7.30
              4           .        .       .       .      .        .

RELATIVE      1          -.08      .02    -.04    -.04   -.14      .02
ERROR         2          -.06      .03    -.02     .05   -.12      .03
              3          -.08      .01    -.01     .05   -.11     -.02
              4           .        .       .       .      .        .

RELATIVE      1           .08      .02     .04     .04    .14      .02
ABSOLUTE      2           .06      .03     .02     .05    .12      .03
ERROR         3           .08      .01     .01     .05    .11      .02
              4           .        .       .       .      .        .

RELATIVE      1           .34      .24     .12     .12    .11      .16
STANDARD      2           .27      .16     .06     .09    .09      .15
ERROR         3           .22      .08     .06     .09    .08      .15
              4           .        .       .       .      .        .
------------------------------------------------------------
```

RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 53 / DIRECTION: 1 / TIME PERIOD: 5 NO. TRIPS: 13

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	60.46	203.45	28.62<=	28.62	15.33	2.24
	1	59.81	213.53	25.82	27.52	15.31	.49
	2	61.28	215.62	26.94	28.72	15.79	.49
	3	68.50	238.88	28.28	30.15	19.30	.49
	4	.	.	.	.	.	.
RELATIVE	1	-.01	.05	-.10	-.10	.00	-.78
ERROR	2	.01	.06	-.06	.00	.03	-.78
	3	.13	.17	-.01	.05	.26	-.78
	4	.	.	.	.	.	.
RELATIVE	1	.01	.05	.10	.10	.00	.78
ABSOLUTE	2	.01	.06	.06	.00	.03	.78
ERROR	3	.13	.17	.01	.05	.26	.78
	4	.	.	.	.	.	.
RELATIVE	1	.15	.18	.21	.21	.14	.53
STANDARD	2	.16	.19	.11	.09	.15	.53
ERROR	3	.18	.23	.03	.07	.04	.53
	4	.	.	.	.	.	.

RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 53 / DIRECTION: 3 / TIME PERIOD: 5 NO. TRIPS: 13

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	76.92	295.72	46.92<=	46.92	16.41	4.62
	1	83.74	328.80	45.38	48.38	18.20	4.86
	2	80.37	307.72	46.28	49.33	17.37	4.71
	3	82.37	308.39	46.39	49.45	17.54	4.96
	4	.	.	.	.	.	.
RELATIVE	1	.09	.11	-.03	-.03	.11	.05
ERROR	2	.04	.04	-.01	.05	.06	.02
	3	.07	.04	-.01	.05	.07	.07
	4	.	.	.	.	.	.
RELATIVE	1	.09	.11	.03	.03	.11	.05
ABSOLUTE	2	.04	.04	.01	.05	.06	.02
ERROR	3	.07	.04	.01	.05	.07	.07
	4	.	.	.	.	.	.
RELATIVE	1	.22	.29	.08	.08	.12	.24
STANDARD	2	.15	.15	.03	.07	.09	.25
ERROR	3	.12	.07	.03	.07	.07	.23
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  92 / DIRECTION:   3 / TIME PERIOD:   1  NO. TRIPS:   4

              NO.                PASS     MAX  ADJ MAX   BRD IN   BRD IN
MEASURE     POINTS    BRDGS     MILES    LOAD     LOAD  MAJ SEG  OTH SEG
-------     ------   ------    ------   ------  ------  -------  -------
MEAN          OBS     56.50    268.80   49.25(= 49.25   11.81     1.42
                1     59.47    276.05   47.97   51.14   11.45      .92
                2     59.47    275.67   47.97   51.14   11.45      .92
                3     59.42    274.10   47.97   51.14   11.45      .91
                4       .         .        .       .       .        .

RELATIVE        1      .05       .03    -.03    -.03    -.03      -.35
ERROR           2      .05       .03    -.03     .04    -.03      -.35
                3      .05       .02    -.03     .04    -.03      -.36
                4       .         .        .       .       .        .

RELATIVE        1      .05       .03     .03     .03     .03       .35
ABSOLUTE        2      .05       .03     .03     .04     .03       .35
ERROR           3      .05       .02     .03     .04     .03       .36
                4       .         .        .       .       .        .

RELATIVE        1      .16       .08     .14     .14     .39       .26
STANDARD        2      .16       .07     .14     .14     .39       .25
ERROR           3      .16       .07     .14     .14     .39       .28
                4       .         .        .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  92 / DIRECTION:   1 / TIME PERIOD:   2  NO. TRIPS:  13

              NO.                PASS     MAX  ADJ MAX   BRD IN   BRD IN
MEASURE     POINTS    BRDGS     MILES    LOAD     LOAD  MAJ SEG  OTH SEG
-------     ------   ------    ------   ------  ------  -------  -------
MEAN          OBS    100.54    516.18   51.38(= 51.38   15.25     6.12
                1     99.89    462.87   45.98   49.01   16.17     5.38
                2    110.75    517.91   49.18   52.43   16.74     6.85
                3    107.42    500.80   48.84   52.06   16.75     6.28
                4       .         .        .       .       .        .

RELATIVE        1     -.01      -.10    -.11    -.11     .06      -.12
ERROR           2      .10       .00    -.04     .02     .10       .12
                3      .07      -.03    -.05     .01     .10       .03
                4       .         .        .       .       .        .

RELATIVE        1      .01       .10     .11     .11     .06       .12
ABSOLUTE        2      .10       .00     .04     .02     .10       .12
ERROR           3      .07       .03     .05     .01     .10       .03
                4       .         .        .       .       .        .

RELATIVE        1      .30       .22     .18     .18     .13       .27
STANDARD        2      .24       .06     .11     .11     .11       .21
ERROR           3      .24       .09     .10     .11     .11       .22
                4       .         .        .       .       .        .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

   LINE: 92 / DIRECTION:  3 / TIME PERIOD:  2  NO. TRIPS:  18

              NO.              PASS     MAX ADJ MAX   BRD IN    BRD IN
   MEASURE   POINTS   BRDGS    MILES    LOAD   LOAD   MAJ SEG   OTH SEG
   -------   ------   ------   ------   ------ ------ -------   -------
   MEAN       OBS     88.83   436.26   51.11(= 51.11  15.74     4.31
               1      96.08   417.05   47.32  50.44   17.34     4.42
               2      94.71   409.36   47.30  50.42   16.66     4.36
               3      95.89   405.86   49.04  52.28   16.83     4.34
               4        .        .       .      .       .         .

   RELATIVE     1       .08     -.04    -.07   -.07     .10       .03
   ERROR        2       .07     -.06    -.07   -.01     .06       .01
                3       .08     -.07    -.04    .02     .07       .01
                4        .        .       .      .       .         .

   RELATIVE     1       .08      .04     .07    .07     .10       .03
   ABSOLUTE     2       .07      .06     .07    .01     .06       .01
   ERROR        3       .08      .07     .04    .02     .07       .01
                4        .        .       .      .       .         .

   RELATIVE     1       .46      .38     .31    .31     .08       .42
   STANDARD     2       .41      .30     .31    .31     .09       .40
   ERROR        3       .37      .23     .17    .17     .09       .45
                4        .        .       .      .       .         .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

   LINE: 92 / DIRECTION:  1 / TIME PERIOD:  3  NO. TRIPS:  18

              NO.              PASS     MAX ADJ MAX   BRD IN    BRD IN
   MEASURE   POINTS   BRDGS    MILES    LOAD   LOAD   MAJ SEG   OTH SEG
   -------   ------   ------   ------   ------ ------ -------   -------
   MEAN       OBS     90.11   403.96   39.06(= 39.06  13.96     6.05
               1     100.83   418.19   36.81  39.24   16.40     5.95
               2      91.76   384.65   35.26  37.59   14.92     5.14
               3      95.86   399.47   35.61  37.96   15.02     6.29
               4        .        .       .      .       .         .

   RELATIVE     1       .12      .04    -.06   -.06     .17      -.02
   ERROR        2       .02     -.05    -.10   -.04     .07      -.15
                3       .06     -.01    -.09   -.03     .08       .04
                4        .        .       .      .       .         .

   RELATIVE     1       .12      .04     .06    .06     .17       .02
   ABSOLUTE     2       .02      .05     .10    .04     .07       .15
   ERROR        3       .06      .01     .09    .03     .08       .04
                4        .        .       .      .       .         .

   RELATIVE     1       .26      .15     .12    .12     .09       .18
   STANDARD     2       .21      .15     .14    .11     .08       .19
   ERROR        3       .20      .08     .12    .09     .08       .15
                4        .        .       .      .       .         .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  92 / DIRECTION:   3 / TIME PERIOD:   3  NO. TRIPS:   17
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	91.12	408.60	39.00<=	39.00	14.21	4.86
	1	102.10	435.78	37.05	39.49	13.35	3.13
	2	103.78	442.15	37.38	39.84	13.37	3.19
	3	103.87	442.51	37.64	40.13	13.20	3.20
	4	.	.	.	.	.	.
RELATIVE	1	.12	.07	-.05	-.05	-.06	-.36
ERROR	2	.14	.08	-.04	.02	-.06	-.34
	3	.14	.08	-.03	.03	-.07	-.34
	4	.	.	.	.	.	.
RELATIVE	1	.12	.07	.05	.05	.06	.36
ABSOLUTE	2	.14	.08	.04	.02	.06	.34
ERROR	3	.14	.08	.03	.03	.07	.34
	4	.	.	.	.	.	.
RELATIVE	1	.31	.25	.12	.12	.10	.23
STANDARD	2	.32	.24	.13	.13	.10	.22
ERROR	3	.33	.25	.12	.13	.10	.22
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  92 / DIRECTION:   1 / TIME PERIOD:   4  NO. TRIPS:   27
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	95.22	494.70	49.78<=	49.78	16.20	5.15
	1	122.54	575.79	53.14	56.65	18.09	7.80
	2	102.43	499.73	47.65	50.79	23.27	5.74
	3	100.21	488.37	47.63	50.78	23.27	5.36
	4	.	.	.	.	.	.
RELATIVE	1	.29	.16	.07	.07	.12	.51
ERROR	2	.08	.01	-.04	.02	.44	.12
	3	.05	-.01	-.04	.02	.44	.04
	4	.	.	.	.	.	.
RELATIVE	1	.29	.16	.07	.07	.12	.51
ABSOLUTE	2	.08	.01	.04	.02	.44	.12
ERROR	3	.05	.01	.04	.02	.44	.04
	4	.	.	.	.	.	.
RELATIVE	1	.51	.32	.13	.13	.10	.21
STANDARD	2	.31	.17	.10	.10	.07	.23
ERROR	3	.23	.11	.08	.08	.07	.23
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  92 / DIRECTION:  3 / TIME PERIOD:  4  NO. TRIPS:  18

                NO.                PASS     MAX ADJ MAX   BRD IN    BRD IN
  MEASURE      POINTS   BRDGS     MILES     LOAD    LOAD  MAJ SEG   OTH SEG
  -------      ------   ------    ------   ------  ------ -------   -------
  MEAN          OBS     97.50    434.78    43.67<= 43.67   17.30      4.89
                 1     100.93    413.62    38.47   41.01   11.94      3.27
                 2     102.07    418.43    39.03   41.61   12.09      3.29
                 3     101.54    413.69    39.43   42.04   12.03      3.28
                 4       .          .        .       .       .         .

  RELATIVE       1       .04      -.05     -.12    -.12    -.31      -.33
  ERROR          2       .05      -.04     -.11    -.05    -.30      -.33
                 3       .04      -.05     -.10    -.04    -.30      -.33
                 4       .          .        .       .       .         .

  RELATIVE       1       .04       .05      .12     .12     .31       .33
  ABSOLUTE       2       .05       .04      .11     .05     .30       .33
  ERROR          3       .04       .05      .10     .04     .30       .33
                 4       .          .        .       .       .         .

  RELATIVE       1       .27       .31      .27     .27     .13       .30
  STANDARD       2       .28       .32      .27     .26     .13       .30
  ERROR          3       .25       .25      .23     .22     .12       .29
                 4       .          .        .       .       .         .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE:  92 / DIRECTION:  1 / TIME PERIOD:  5  NO. TRIPS:  11

                NO.                PASS     MAX ADJ MAX   BRD IN    BRD IN
  MEASURE      POINTS   BRDGS     MILES     LOAD    LOAD  MAJ SEG   OTH SEG
  -------      ------   ------    ------   ------  ------ -------   -------
  MEAN          OBS     33.73    189.17    22.73<= 22.73    6.48      1.51
                 1      36.94    212.78    22.98   24.50    7.35      1.06
                 2      37.55    214.47    23.19   24.72    7.48      1.11
                 3      35.56    198.78    22.88   24.39    7.34       .76
                 4       .          .        .       .       .         .

  RELATIVE       1       .10       .12      .01     .01     .13      -.30
  ERROR          2       .11       .13      .02     .09     .15      -.27
                 3       .05       .05      .01     .07     .13      -.50
                 4       .          .        .       .       .         .

  RELATIVE       1       .10       .12      .01     .01     .13       .30
  ABSOLUTE       2       .11       .13      .02     .09     .15       .27
  ERROR          3       .05       .05      .01     .07     .13       .50
                 4       .          .        .       .       .         .

  RELATIVE       1       .19       .24      .13     .13     .20       .36
  STANDARD       2       .22       .17      .14     .16     .20       .37
  ERROR          3       .21       .14      .13     .15     .20       .62
                 4       .          .        .       .       .         .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE:  92 / DIRECTION:   3 / TIME PERIOD:   5  NO. TRIPS:    7

                NO.                PASS     MAX  ADJ MAX   BRD IN   BRD IN
MEASURE        POINTS    BRDGS    MILES    LOAD    LOAD   MAJ SEG  OTH SEG
-------        ------    -----    -----    ----    ----   -------  -------
MEAN           OBS       36.14   197.80   17.71<= 17.71    6.82     1.61
                 1       42.66   241.90   18.66   19.89    8.88     1.40
                 2       38.84   217.94   17.74   18.91    8.01     1.44
                 3       32.68   173.60   15.16   16.16    8.11     1.38
                 4         .        .       .       .        .        .

RELATIVE         1        .18      .22     .05     .05      .30     -.13
ERROR            2        .07      .10     .00     .07      .17     -.10
                 3       -.10     -.12    -.14    -.09      .19     -.14
                 4         .        .       .       .        .        .

RELATIVE         1        .18      .22     .05     .05      .30      .13
ABSOLUTE         2        .07      .10     .00     .07      .17      .10
ERROR            3        .10      .12     .14     .09      .19      .14
                 4         .        .       .       .        .        .

RELATIVE         1        .34      .43     .16     .16      .23      .54
STANDARD         2        .16      .19     .14     .17      .19      .48
ERROR            3        .17      .16     .13     .13      .16      .38
                 4         .        .       .       .        .        .
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-----------------------------------------------------------------
    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 117 / DIRECTION:   4 / TIME PERIOD:   1  NO. TRIPS:    4

                NO.                PASS     MAX  ADJ MAX   BRD IN   BRD IN
MEASURE        POINTS    BRDGS    MILES    LOAD    LOAD   MAJ SEG  OTH SEG
-------        ------    -----    -----    ----    ----   -------  -------
MEAN           OBS       80.00   292.75   54.82<= 54.82   17.44     7.52
                 1       72.32   262.75   45.67   48.69   16.15     6.67
                 2       74.52   269.60   49.05   52.29   17.14     6.71
                 3       75.52   275.05   49.05   52.29   17.16     6.87
                 4         .        .       .       .        .        .

RELATIVE         1       -.10     -.10    -.17    -.17     -.07     -.11
ERROR            2       -.07     -.08    -.11    -.05     -.02     -.11
                 3       -.06     -.06    -.11    -.05     -.02     -.09
                 4         .        .       .       .        .        .

RELATIVE         1        .10      .10     .17     .17      .07      .11
ABSOLUTE         2        .07      .08     .11     .05      .02      .11
ERROR            3        .06      .06     .11     .05      .02      .09
                 4         .        .       .       .        .        .

RELATIVE         1        .14      .13     .23     .23      .21      .24
STANDARD         2        .07      .09     .12     .07      .12      .24
ERROR            3        .06      .07     .12     .07      .12      .22
                 4         .        .       .       .        .        .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 117 / DIRECTION:  2 / TIME PERIOD:  2  NO. TRIPS:  15

            NO.                 PASS    MAX ADJ MAX   BRD IN   BRD IN
MEASURE    POINTS   BRDGS      MILES   LOAD    LOAD   MAJ SEG  OTH SEG
-------    ------   ------     ------  ------  ------ -------  -------
MEAN        OBS     62.93     180.13   29.07(= 29.07   13.73    7.09
             1      70.77     183.25   26.41   28.15   16.02    7.75
             2      74.13     193.12   27.45   29.26   15.44    8.65
             3      73.07     189.39   27.53   29.35   15.41    8.45
             4        .          .       .       .       .        .

RELATIVE     1        .12       .02    -.09    -.09     .17      .09
ERROR        2        .18       .07    -.06     .01     .12      .22
             3        .16       .05    -.05     .01     .12      .19
             4         .         .       .       .       .        .

RELATIVE     1        .12       .02     .09     .09     .17      .09
ABSOLUTE     2        .18       .07     .06     .01     .12      .22
ERROR        3        .16       .05     .05     .01     .12      .19
             4         .         .       .       .       .        .

RELATIVE     1        .22       .10     .12     .12     .09      .15
STANDARD     2        .24       .10     .11     .10     .09      .11
ERROR        3        .26       .10     .11     .10     .09      .12
             4         .         .       .       .       .        .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 117 / DIRECTION:  4 / TIME PERIOD:  2  NO. TRIPS:  16

            NO.                 PASS    MAX ADJ MAX   BRD IN   BRD IN
MEASURE    POINTS   BRDGS      MILES   LOAD    LOAD   MAJ SEG  OTH SEG
-------    ------   ------     ------  ------  ------ -------  -------
MEAN        OBS     88.06     282.81   46.50(= 46.50   14.13    9.97
             1      79.12     235.97   32.60   34.75   12.50    9.02
             2      90.35     268.99   42.88   45.71   14.81   10.12
             3      92.54     272.96   42.88   45.71   14.85   10.47
             4        .          .       .       .       .        .

RELATIVE     1       -.10      -.17    -.30    -.30    -.11     -.10
ERROR        2        .03      -.05    -.08    -.02     .05      .02
             3        .05      -.03    -.08    -.02     .05      .05
             4         .         .       .       .       .        .

RELATIVE     1        .10       .17     .30     .30     .11      .10
ABSOLUTE     2        .03       .05     .08     .02     .05      .02
ERROR        3        .05       .03     .08     .02     .05      .05
             4         .         .       .       .       .        .

RELATIVE     1        .19       .21     .39     .39     .12      .12
STANDARD     2        .11       .08     .13     .09     .08      .10
ERROR        3        .12       .06     .13     .09     .08      .09
             4         .         .       .       .       .        .
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----------------------------------------------------------------
   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 117 / DIRECTION:  2 / TIME PERIOD:  3  NO. TRIPS:  19
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| | NO. | | PASS | MAX | ADJ MAX | BRD IN | BRD IN |
MEASURE	POINTS	BRDGS	MILES	LOAD	LOAD	MAJ SEG	OTH SEG
MEAN	OBS	81.79	210.67	30.79<=	30.79	14.26	10.65
	1	84.39	211.38	27.27	29.07	16.63	10.23
	2	81.63	204.25	26.89	28.67	15.54	10.11
	3	83.63	208.85	27.04	28.82	15.58	10.49
	4	.	.	.	.	.	.
RELATIVE	1	.03	.00	-.11	-.11	.17	-.04
ERROR	2	.00	-.03	-.13	-.07	.09	-.05
	3	.02	-.01	-.12	-.06	.09	-.01
	4	.	.	.	.	.	.
RELATIVE	1	.03	.00	.11	.11	.17	.04
ABSOLUTE	2	.00	.03	.13	.07	.09	.05
ERROR	3	.02	.01	.12	.06	.09	.01
	4	.	.	.	.	.	.
RELATIVE	1	.25	.19	.21	.21	.10	.10
STANDARD	2	.17	.13	.20	.17	.07	.10
ERROR	3	.14	.08	.19	.16	.07	.09
	4	.	.	.	.	.	.

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----------------------------------------------------------------
   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 117 / DIRECTION:  4 / TIME PERIOD:  3  NO. TRIPS:  20
```

| | NO. | | PASS | MAX | ADJ MAX | BRD IN | BRD IN |
MEASURE	POINTS	BRDGS	MILES	LOAD	LOAD	MAJ SEG	OTH SEG
MEAN	OBS	84.53	232.07	33.58<=	33.58	13.57	9.56
	1	90.65	237.90	29.83	31.80	16.25	9.69
	2	91.61	236.59	31.14	33.20	16.34	9.82
	3	90.34	233.05	31.21	33.28	16.30	9.62
	4	.	.	.	.	.	.
RELATIVE	1	.07	.03	-.11	-.11	.20	.01
ERROR	2	.08	.02	-.07	-.01	.20	.03
	3	.07	.00	-.07	-.01	.20	.01
	4	.	.	.	.	.	.
RELATIVE	1	.07	.03	.11	.11	.20	.01
ABSOLUTE	2	.08	.02	.07	.01	.20	.03
ERROR	3	.07	.00	.07	.01	.20	.01
	4	.	.	.	.	.	.
RELATIVE	1	.21	.15	.15	.15	.09	.10
STANDARD	2	.17	.10	.09	.07	.07	.09
ERROR	3	.13	.08	.09	.07	.07	.07
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 117 / DIRECTION:   2 / TIME PERIOD:   4  NO. TRIPS:  20
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	105.70	323.95	47.90(=	47.90	26.15	10.68
	1	105.59	309.10	38.32	40.85	24.56	11.29
	2	109.85	321.07	43.17	46.02	26.01	11.56
	3	109.66	320.56	43.16	46.01	25.99	11.53
	4	.	.	.	.	.	.
RELATIVE	1	.00	-.05	-.20	-.20	-.06	.06
ERROR	2	.04	-.01	-.10	-.04	-.01	.08
	3	.04	-.01	-.10	-.04	-.01	.08
	4	.	.	.	.	.	.
RELATIVE	1	.00	.05	.20	.20	.06	.06
ABSOLUTE	2	.04	.01	.10	.04	.01	.08
ERROR	3	.04	.01	.10	.04	.01	.08
	4	.	.	.	.	.	.
RELATIVE	1	.17	.17	.26	.26	.09	.11
STANDARD	2	.15	.08	.13	.09	.04	.10
ERROR	3	.15	.08	.13	.09	.04	.09
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 117 / DIRECTION:   4 / TIME PERIOD:   4  NO. TRIPS:  17
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	94.92	262.88	41.78(=	41.78	18.85	9.54
	1	114.01	273.71	38.77	41.33	19.90	12.37
	2	115.67	276.51	41.34	44.07	19.91	12.64
	3	116.21	277.20	41.28	44.00	20.01	12.70
	4	.	.	.	.	.	.
RELATIVE	1	.20	.04	-.07	-.07	.06	.30
ERROR	2	.22	.05	-.01	.05	.06	.33
	3	.22	.05	-.01	.05	.06	.33
	4	.	.	.	.	.	.
RELATIVE	1	.20	.04	.07	.07	.06	.30
ABSOLUTE	2	.22	.05	.01	.05	.06	.33
ERROR	3	.22	.05	.01	.05	.06	.33
	4	.	.	.	.	.	.
RELATIVE	1	.33	.19	.15	.15	.05	.13
STANDARD	2	.29	.11	.05	.08	.05	.11
ERROR	3	.27	.09	.05	.08	.05	.09
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 117 / DIRECTION:  2 / TIME PERIOD:  5  NO. TRIPS:  16

              NO.                 PASS    MAX ADJ MAX   BRD IN   BRD IN
 MEASURE     POINTS    BRDGS     MILES   LOAD    LOAD  MAJ SEG  OTH SEG
 -------     ------    ------    ------  ------  ------ -------  -------
 MEAN         OBS      58.13    201.08  27.06(= 27.06   15.56     5.40
               1       60.82    205.91  24.86   26.50   16.18     5.69
               2       61.09    204.89  26.07   27.79   16.31     5.69
               3       60.61    200.29  26.21   27.94   16.30     5.60
               4         .         .       .       .       .        .

 RELATIVE       1       .05       .02    -.08    -.08     .04      .05
 ERROR          2       .05       .02    -.04     .03     .05      .05
                3       .04       .00    -.03     .03     .05      .04
                4         .         .       .       .       .        .

 RELATIVE       1       .05       .02     .08     .08     .04      .05
 ABSOLUTE       2       .05       .02     .04     .03     .05      .05
 ERROR          3       .04       .00     .03     .03     .05      .04
                4         .         .       .       .       .        .

 RELATIVE       1       .20       .16     .12     .12     .09      .19
 STANDARD       2       .16       .09     .06     .07     .05      .19
 ERROR          3       .15       .06     .05     .06     .05      .17
                4         .         .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 117 / DIRECTION:  4 / TIME PERIOD:  5  NO. TRIPS:  12

              NO.                 PASS    MAX ADJ MAX   BRD IN   BRD IN
 MEASURE     POINTS    BRDGS     MILES   LOAD    LOAD  MAJ SEG  OTH SEG
 -------     ------    ------    ------  ------  ------ -------  -------
 MEAN         OBS      48.97    157.90  23.61(= 23.61    6.92     5.85
               1       53.72    169.82  24.91   26.55    9.30     5.85
               2       49.65    154.85  23.09   24.62    8.22     5.54
               3       50.52    158.84  23.27   24.81    8.08     5.73
               4         .         .       .       .       .        .

 RELATIVE       1       .10       .08     .06     .06     .34      .00
 ERROR          2       .01      -.02    -.02     .04     .19     -.05
                3       .03       .01    -.01     .05     .17     -.02
                4         .         .       .       .       .        .

 RELATIVE       1       .10       .08     .06     .06     .34      .00
 ABSOLUTE       2       .01       .02     .02     .04     .19      .05
 ERROR          3       .03       .01     .01     .05     .17      .02
                4         .         .       .       .       .        .

 RELATIVE       1       .24       .22     .11     .11     .14      .14
 STANDARD       2       .15       .08     .07     .09     .11      .12
 ERROR          3       .13       .04     .06     .09     .11      .10
                4         .         .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 152 / DIRECTION:   2 / TIME PERIOD:   1  NO. TRIPS:   1

               NO.                PASS    MAX ADJ MAX   BRD IN   BRD IN
  MEASURE     POINTS    BRDGS     MILES   LOAD    LOAD  MAJ SEG  OTH SEG
  -------     ------    -----     -----   ----    ----  -------  -------
  MEAN         OBS      58.00    287.90  22.00<= 22.00   10.75     1.50
               1        97.00    408.00  50.00   53.30   18.37     2.35
               2        67.40    320.40  25.00   26.65   11.87     1.99
               3        64.80    297.00  25.00   26.65   12.02     1.67
               4          .         .       .       .       .        .

  RELATIVE     1         .67       .42    1.27    1.27    .71       .57
  ERROR        2         .16       .11     .14     .21    .10       .33
               3         .12       .03     .14     .21    .12       .11
               4          .         .       .       .       .        .

  RELATIVE     1         .67       .42    1.27    1.27    .71       .57
  ABSOLUTE     2         .16       .11     .14     .21    .10       .33
  ERROR        3         .12       .03     .14     .21    .12       .11
               4          .         .       .       .       .        .

  RELATIVE     1         .67       .42    1.27    1.27    .36       .48
  STANDARD     2         .16       .11     .14     .21    .17       .50
  ERROR        3         .12       .03     .14     .21    .18       .39
               4          .         .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 152 / DIRECTION:   4 / TIME PERIOD:   1  NO. TRIPS:   1

               NO.                PASS    MAX ADJ MAX   BRD IN   BRD IN
  MEASURE     POINTS    BRDGS     MILES   LOAD    LOAD  MAJ SEG  OTH SEG
  -------     ------    -----     -----   ----    ----  -------  -------
  MEAN         OBS      41.00    265.60  35.00<= 35.00   12.33      .80
               1        62.80    349.30  39.70   42.32   16.97     2.38
               2        62.80    349.30  39.70   42.32   16.97     2.38
               3        44.90    252.90  31.60   33.69   13.33      .98
               4          .         .       .       .       .        .

  RELATIVE     1         .53       .32     .13     .13    .38      1.97
  ERROR        2         .53       .32     .13     .21    .38      1.97
               3         .10      -.05    -.10    -.04    .08       .22
               4          .         .       .       .       .        .

  RELATIVE     1         .53       .32     .13     .13    .38      1.97
  ABSOLUTE     2         .53       .32     .13     .21    .38      1.97
  ERROR        3         .10       .05     .10     .04    .08       .22
               4          .         .       .       .       .        .

  RELATIVE     1         .53       .32     .13     .13    .34       .70
  STANDARD     2         .53       .32     .13     .21    .34       .70
  ERROR        3         .10       .05     .10     .04    .31       .43
               4          .         .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 152 / DIRECTION:   2 / TIME PERIOD:   2  NO. TRIPS:   10
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MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	114.60	480.59	46.30<=	46.30	17.25	4.56
	1	140.10	530.83	40.06	42.70	20.68	5.74
	2	130.54	499.69	42.98	45.82	18.78	5.54
	3	129.73	495.06	44.26	47.18	19.15	5.31
	4	.	.	.	.	.	.
RELATIVE	1	.22	.10	-.13	-.13	.20	.26
ERROR	2	.14	.04	-.07	-.01	.09	.22
	3	.13	.03	-.04	.02	.11	.16
	4	.	.	.	.	.	.
RELATIVE	1	.22	.10	.13	.13	.20	.26
ABSOLUTE	2	.14	.04	.07	.01	.09	.22
ERROR	3	.13	.03	.04	.02	.11	.16
	4	.	.	.	.	.	.
RELATIVE	1	.62	.38	.52	.52	.21	.25
STANDARD	2	.28	.16	.19	.19	.11	.24
ERROR	3	.22	.09	.08	.08	.10	.22
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 152 / DIRECTION:   4 / TIME PERIOD:   2  NO. TRIPS:   10
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MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	150.10	696.51	56.80<=	56.80	23.33	8.90
	1	145.29	670.10	41.53	44.27	22.68	8.58
	2	147.46	675.79	44.68	47.63	23.14	8.67
	3	150.98	699.30	44.62	47.56	23.53	8.93
	4	.	.	.	.	.	.
RELATIVE	1	-.03	-.04	-.27	-.27	-.03	-.04
ERROR	2	-.02	-.03	-.21	-.16	-.01	-.03
	3	.01	.00	-.21	-.16	.01	.00
	4	.	.	.	.	.	.
RELATIVE	1	.03	.04	.27	.27	.03	.04
ABSOLUTE	2	.02	.03	.21	.16	.01	.03
ERROR	3	.01	.00	.21	.16	.01	.00
	4	.	.	.	.	.	.
RELATIVE	1	.32	.25	.40	.40	.15	.25
STANDARD	2	.18	.14	.33	.30	.10	.24
ERROR	3	.14	.09	.33	.30	.09	.22
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 152 / DIRECTION:  2 / TIME PERIOD:  3  NO. TRIPS:   9
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MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	96.78	357.52	33.67<=	33.67	12.28	4.77
	1	101.59	362.46	28.26	30.12	13.23	4.87
	2	99.98	363.50	29.59	31.54	12.64	4.94
	3	97.21	354.26	29.36	31.29	12.01	4.92
	4	.	.	.	.	.	.
RELATIVE	1	.05	.01	-.16	-.16	.08	.02
ERROR	2	.03	.02	-.12	-.06	.03	.04
	3	.00	-.01	-.13	-.07	-.02	.03
	4	.	.	.	.	.	.
RELATIVE	1	.05	.01	.16	.16	.08	.02
ABSOLUTE	2	.03	.02	.12	.06	.03	.04
ERROR	3	.00	.01	.13	.07	.02	.03
	4	.	.	.	.	.	.
RELATIVE	1	.16	.14	.31	.31	.16	.26
STANDARD	2	.14	.10	.28	.25	.16	.26
ERROR	3	.16	.07	.28	.25	.15	.26
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 152 / DIRECTION:  4 / TIME PERIOD:  3  NO. TRIPS:   9
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MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	85.67	355.41	30.22<=	30.22	14.96	4.53
	1	94.22	355.63	24.34	25.95	16.72	4.90
	2	87.23	334.76	24.50	26.12	15.51	4.52
	3	89.83	349.37	25.17	26.83	15.74	4.73
	4	.	.	.	.	.	.
RELATIVE	1	.10	.00	-.19	-.19	.12	.08
ERROR	2	.02	-.06	-.19	-.14	.04	.00
	3	.05	-.02	-.17	-.11	.05	.04
	4	.	.	.	.	.	.
RELATIVE	1	.10	.00	.19	.19	.12	.08
ABSOLUTE	2	.02	.06	.19	.14	.04	.00
ERROR	3	.05	.02	.17	.11	.05	.04
	4	.	.	.	.	.	.
RELATIVE	1	.26	.21	.37	.37	.10	.32
STANDARD	2	.23	.20	.36	.34	.08	.33
ERROR	3	.24	.12	.36	.34	.08	.33
	4	.	.	.	.	.	.

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 152 / DIRECTION:  2 / TIME PERIOD:  4  NO. TRIPS:  17
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	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	120.53	502.29	44.65<=	44.65	14.84	7.38
	1	138.20	606.29	39.38	41.98	23.64	7.83
	2	137.14	575.67	53.09	56.59	.	7.35
	3	137.02	575.94	53.82	57.38	.	7.37
	4	.	.	.	.	.	.
RELATIVE	1	.15	.21	-.12	-.12	.59	.06
ERROR	2	.14	.15	.19	.27	.	.00
	3	.14	.15	.21	.29	.	.00
	4	.	.	.	.	.	.
RELATIVE	1	.15	.21	.12	.12	.59	.06
ABSOLUTE	2	.14	.15	.19	.27	.	.00
ERROR	3	.14	.15	.21	.29	.	.00
	4	.	.	.	.	.	.
RELATIVE	1	.36	.24	.37	.37	.09	.19
STANDARD	2	.40	.31	.84	.91	.	.21
ERROR	3	.37	.30	.84	.91	.	.22
	4	.	.	.	.	.	.

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 152 / DIRECTION:  4 / TIME PERIOD:  4  NO. TRIPS:  12
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	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	139.83	519.12	50.67<=	50.67	23.65	8.65
	1	149.84	569.83	36.36	38.76	24.06	8.63
	2	140.32	522.22	43.91	46.81	24.14	8.41
	3	139.08	518.62	45.43	48.43	24.11	8.27
	4	.	.	.	.	.	.
RELATIVE	1	.07	.10	-.28	-.28	.02	.00
ERROR	2	.00	.01	-.13	-.08	.02	-.03
	3	-.01	.00	-.10	-.04	.02	-.04
	4	.	.	.	.	.	.
RELATIVE	1	.07	.10	.28	.28	.02	.00
ABSOLUTE	2	.00	.01	.13	.08	.02	.03
ERROR	3	.01	.00	.10	.04	.02	.04
	4	.	.	.	.	.	.
RELATIVE	1	.30	.32	.37	.37	.19	.32
STANDARD	2	.20	.17	.21	.17	.13	.30
ERROR	3	.18	.13	.18	.15	.13	.28
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 152 / DIRECTION:   2 / TIME PERIOD:   5  NO. TRIPS:   7

                 NO.              PASS     MAX  ADJ MAX   BRD IN   BRD IN
MEASURE        POINTS   BRDGS    MILES    LOAD     LOAD   MAJ SEG  OTH SEG
-------        ------   ------   ------   ------  ------  -------  -------
MEAN             OBS    54.57   302.90   26.00<=  26.00    6.46     2.87
                  1     71.01   343.07   22.51    24.00    9.36     3.36
                  2     68.84   333.43   22.69    24.18    9.36     3.14
                  3     62.17   302.17   22.01    23.47    8.04     3.00
                  4       .        .        .       .        .        .

RELATIVE          1      .30      .13    -.13     -.13      .45      .17
ERROR             2      .26      .10    -.13     -.07      .45      .09
                  3      .14      .00    -.15     -.10      .24      .05
                  4       .        .        .       .        .        .

RELATIVE          1      .30      .13     .13      .13      .45      .17
ABSOLUTE          2      .26      .10     .13      .07      .45      .09
ERROR             3      .14      .00     .15      .10      .24      .05
                  4       .        .        .       .        .        .

RELATIVE          1      .62      .39     .42      .42      .20      .44
STANDARD          2      .53      .37     .42      .41      .20      .39
ERROR             3      .23      .16     .36      .33      .16      .39
                  4       .        .        .       .        .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 152 / DIRECTION:   4 / TIME PERIOD:   5  NO. TRIPS:   7

                 NO.              PASS     MAX  ADJ MAX   BRD IN   BRD IN
MEASURE        POINTS   BRDGS    MILES    LOAD     LOAD   MAJ SEG  OTH SEG
-------        ------   ------   ------   ------  ------  -------  -------
MEAN             OBS    52.43   272.90   20.71<=  20.71*  11.10     2.16
                  1     56.91   296.23   20.61    21.97   12.24     2.26
                  2     50.24   267.91   19.41    20.70   10.29     2.17
                  3     49.09   258.89   19.27    20.54   10.18     2.08
                  4       .        .        .       .        .        .

RELATIVE          1      .09      .09     .00      .00      .10      .05
ERROR             2     -.04     -.02    -.06      .00     -.07      .00
                  3     -.06     -.05    -.07     -.01     -.08     -.04
                  4       .        .        .       .        .        .

RELATIVE          1      .09      .09     .00      .00      .10      .05
ABSOLUTE          2      .04      .02     .06      .00      .07      .00
ERROR             3      .06      .05     .07      .01      .08      .04
                  4       .        .        .       .        .        .

RELATIVE          1      .31      .27     .32      .32      .19      .36
STANDARD          2      .17      .10     .14      .12      .10      .34
ERROR             3      .17      .10     .14      .12      .10      .35
                  4       .        .        .       .        .        .
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      RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

    LINE: 200 / DIRECTION:  1 / TIME PERIOD:  1  NO. TRIPS:   2

                  NO.              PASS     MAX  ADJ MAX   BRD IN   BRD IN
    MEASURE      POINTS   BRDGS   MILES    LOAD     LOAD   MAJ SEG  OTH SEG
    -------      ------   ------  ------   ------  ------  -------  -------
    MEAN          OBS     84.00   121.90   51.00<= 51.00   35.00    16.33
                   1      68.30   110.10   50.70   54.05   33.90    11.47
                   2      74.10   122.65   50.70   54.05   33.05    13.68
                   3      68.40   114.20   47.35   50.48   32.40    12.00
                   4        .        .        .       .       .        .

    RELATIVE       1      -.19     -.10    -.01    -.01    -.03     -.30
    ERROR          2      -.12      .01    -.01     .06    -.06     -.16
                   3      -.19     -.06    -.07    -.01    -.07     -.27
                   4        .        .        .       .       .        .

    RELATIVE       1       .19      .10     .01     .01     .03      .30
    ABSOLUTE       2       .12      .01     .01     .06     .06      .16
    ERROR          3       .19      .06     .07     .01     .07      .27
                   4        .        .        .       .       .        .

    RELATIVE       1       .22      .13     .12     .12     .04     1.06
    STANDARD       2       .16      .09     .12     .15     .05      .70
    ERROR          3       .19      .06     .07     .01     .06      .73
                   4        .        .        .       .       .        .
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      RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

    LINE: 200 / DIRECTION:  3 / TIME PERIOD:  1  NO. TRIPS:   1

                  NO.              PASS     MAX  ADJ MAX   BRD IN   BRD IN
    MEASURE      POINTS   BRDGS   MILES    LOAD     LOAD   MAJ SEG  OTH SEG
    -------      ------   ------  ------   ------  ------  -------  -------
    MEAN          OBS     64.00    99.60   45.00<= 45.00   35.00     9.67
                   1      49.00    91.90   34.60   36.88   25.50     7.83
                   2      60.20   104.20   45.00   47.97   35.40     8.27
                   3      64.20   111.00   45.00   47.97   35.70     9.50
                   4        .        .        .       .       .        .

    RELATIVE       1      -.23     -.08    -.23    -.23    -.27     -.19
    ERROR          2      -.06      .05     .00     .07     .01     -.14
                   3       .00      .11     .00     .07     .02     -.02
                   4        .        .        .       .       .        .

    RELATIVE       1       .23      .08     .23     .23     .27      .19
    ABSOLUTE       2       .06      .05     .00     .07     .01      .14
    ERROR          3       .00      .11     .00     .07     .02      .02
                   4        .        .        .       .       .        .

    RELATIVE       1       .23      .08     .23     .23     .37      .56
    STANDARD       2       .06      .05     .00     .07     .01      .63
    ERROR          3       .00      .11     .00     .07     .02      .32
                   4        .        .        .       .       .        .
    ------------------------------------------------------------
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 200 / DIRECTION:   1 / TIME PERIOD:   2  NO. TRIPS:   23

                NO.              PASS    MAX  ADJ MAX  BRD IN   BRD IN
MEASURE       POINTS   BRDGS    MILES   LOAD    LOAD   MAJ SEG  OTH SEG
-------       ------   ------   ------  ------  ------  -------  -------
MEAN            OBS    90.22   129.24  49.70(= 49.70   34.35    18.62
                 1     87.39   130.60  45.91   48.94   32.34    18.35
                 2     87.67   129.83  47.99   51.16   34.17    17.83
                 3     88.03   129.62  48.08   51.26   34.16    17.96
                 4       .        .       .       .       .        .

RELATIVE         1     -.03      .01    -.08    -.08    -.06     -.01
ERROR            2     -.03      .00    -.03     .03    -.01     -.04
                 3     -.02      .00    -.03     .03    -.01     -.04
                 4       .        .       .       .       .        .

RELATIVE         1      .03      .01     .08     .08     .06      .01
ABSOLUTE         2      .03      .00     .03     .03     .01      .04
ERROR            3      .02      .00     .03     .03     .01      .04
                 4       .        .       .       .       .        .

RELATIVE         1      .16      .17     .13     .13     .04      .09
STANDARD         2      .10      .08     .06     .07     .03      .07
ERROR            3      .08      .07     .05     .06     .03      .06
                 4       .        .       .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 200 / DIRECTION:   3 / TIME PERIOD:   2  NO. TRIPS:   20

                NO.              PASS    MAX  ADJ MAX  BRD IN   BRD IN
MEASURE       POINTS   BRDGS    MILES   LOAD    LOAD   MAJ SEG  OTH SEG
-------       ------   ------   ------  ------  ------  -------  -------
MEAN            OBS    97.20   124.58  50.65(= 50.65   42.45    18.25
                 1     96.69   135.20  48.15   51.33   43.58    17.70
                 2     95.35   129.79  49.32   52.58   43.58    17.26
                 3     94.09   128.01  49.71   52.99   41.47    17.54
                 4       .        .       .       .       .        .

RELATIVE         1     -.01      .09    -.05    -.05     .03     -.03
ERROR            2     -.02      .04    -.03     .04     .03     -.05
                 3     -.03      .03    -.02     .05    -.02     -.04
                 4       .        .       .       .       .        .

RELATIVE         1      .01      .09     .05     .05     .03      .03
ABSOLUTE         2      .02      .04     .03     .04     .03      .05
ERROR            3      .03      .03     .02     .05     .02      .04
                 4       .        .       .       .       .        .

RELATIVE         1      .13      .16     .09     .09     .05      .08
STANDARD         2      .12      .09     .04     .06     .05      .07
ERROR            3      .07      .06     .04     .06     .01      .06
                 4       .        .       .       .       .        .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 200 / DIRECTION:  1 / TIME PERIOD:  3  NO. TRIPS:  27
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	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	83.07	106.22	41.00<=	41.00	38.52	14.85
	1	80.54	99.76	36.08	38.46	39.69	13.62
	2	82.66	102.76	38.57	41.12	40.51	14.05
	3	84.74	105.35	38.62	41.17	40.67	14.69
	4	.	.	.	.	.	.
RELATIVE	1	-.03	-.06	-.12	-.12	.03	-.08
ERROR	2	.00	-.03	-.06	.00	.05	-.05
	3	.02	-.01	-.06	.00	.06	-.01
	4	.	.	.	.	.	.
RELATIVE	1	.03	.06	.12	.12	.03	.08
ABSOLUTE	2	.00	.03	.06	.00	.05	.05
ERROR	3	.02	.01	.06	.00	.06	.01
	4	.	.	.	.	.	.
RELATIVE	1	.14	.15	.16	.16	.03	.08
STANDARD	2	.08	.07	.09	.07	.02	.06
ERROR	3	.07	.05	.09	.07	.02	.05
	4	.	.	.	.	.	.

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 200 / DIRECTION:  3 / TIME PERIOD:  3  NO. TRIPS:  27
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	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	82.52	103.43	41.74<=	41.74	31.37	17.05
	1	79.30	97.68	38.00	40.50	31.91	15.80
	2	81.90	100.15	39.73	42.36	31.91	16.66
	3	81.84	100.24	39.72	42.34	31.53	16.77
	4	.	.	.	.	.	.
RELATIVE	1	-.04	-.06	-.09	-.09	.02	-.07
ERROR	2	-.01	-.03	-.05	.01	.02	-.02
	3	-.01	-.03	-.05	.01	.00	-.02
	4	.	.	.	.	.	.
RELATIVE	1	.04	.06	.09	.09	.02	.07
ABSOLUTE	2	.01	.03	.05	.01	.02	.02
ERROR	3	.01	.03	.05	.01	.00	.02
	4	.	.	.	.	.	.
RELATIVE	1	.18	.20	.14	.14	.03	.08
STANDARD	2	.12	.07	.08	.07	.03	.06
ERROR	3	.11	.06	.08	.07	.01	.05
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 200 / DIRECTION:   1 / TIME PERIOD:   4  NO. TRIPS:   31
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	123.06	164.99	61.68(=	61.68	55.97	22.37
	1	118.70	158.64	57.33	61.12	54.32	21.46
	2	118.92	157.31	60.42	64.40	56.65	20.75
	3	121.33	159.22	61.08	65.12	56.83	21.50
	4	.	.	.	.	.	.
RELATIVE	1	-.04	-.04	-.07	-.07	-.03	-.04
ERROR	2	-.03	-.05	-.02	.04	.01	-.07
	3	-.01	-.04	-.01	.06	.02	-.04
	4	.	.	.	.	.	.
RELATIVE	1	.04	.04	.07	.07	.03	.04
ABSOLUTE	2	.03	.05	.02	.04	.01	.07
ERROR	3	.01	.04	.01	.06	.02	.04
	4	.	.	.	.	.	.
RELATIVE	1	.16	.19	.10	.10	.03	.10
STANDARD	2	.13	.12	.06	.08	.02	.09
ERROR	3	.10	.09	.05	.08	.02	.07
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 200 / DIRECTION:   3 / TIME PERIOD:   4  NO. TRIPS:   31
```

MEASURE	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	122.52	155.48	60.55(=	60.55	50.52	24.00
	1	118.66	149.35	55.58	59.25	44.91	24.59
	2	119.60	151.49	57.65	61.45	44.90	24.90
	3	123.50	155.39	58.81	62.69	50.40	24.37
	4	.	.	.	.	.	.
RELATIVE	1	-.03	-.04	-.08	-.08	-.11	.02
ERROR	2	-.02	-.03	-.05	.01	-.11	.04
	3	.01	.00	-.03	.04	.00	.02
	4	.	.	.	.	.	.
RELATIVE	1	.03	.04	.08	.08	.11	.02
ABSOLUTE	2	.02	.03	.05	.01	.11	.04
ERROR	3	.01	.00	.03	.04	.00	.02
	4	.	.	.	.	.	.
RELATIVE	1	.14	.14	.13	.13	.05	.07
STANDARD	2	.11	.10	.08	.07	.05	.06
ERROR	3	.10	.07	.06	.06	.00	.05
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 200 / DIRECTION:  1 / TIME PERIOD:  5  NO. TRIPS:  14

                NO.            PASS    MAX ADJ MAX   BRD IN   BRD IN
  MEASURE      POINTS  BRDGS   MILES   LOAD    LOAD  MAJ SEG  OTH SEG
  -------      ------  ------  ------  ------  ------ -------  -------
  MEAN          OBS    67.43  100.39  40.71<= 40.71   33.79    11.21
                1      71.87  101.56  37.40   39.87   34.71    12.39
                2      70.22   97.90  38.90   41.47   35.84    11.46
                3      70.76   97.76  38.88   41.44   35.89    11.62
                4         .       .      .       .       .        .

  RELATIVE      1       .07     .01   -.08    -.08     .03      .10
  ERROR         2       .04    -.02   -.04     .02     .06      .02
                3       .05    -.03   -.05     .02     .06      .04
                4         .       .      .       .       .        .

  RELATIVE      1       .07     .01    .08     .08     .03      .10
  ABSOLUTE      2       .04     .02    .04     .02     .06      .02
  ERROR         3       .05     .03    .05     .02     .06      .04
                4         .       .      .       .       .        .

  RELATIVE      1       .17     .15    .14     .14     .05      .11
  STANDARD      2       .11     .08    .08     .07     .04      .09
  ERROR         3       .13     .06    .08     .07     .04      .09
                4         .       .      .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 200 / DIRECTION:  3 / TIME PERIOD:  5  NO. TRIPS:  14

                NO.            PASS    MAX ADJ MAX   BRD IN   BRD IN
  MEASURE      POINTS  BRDGS   MILES   LOAD    LOAD  MAJ SEG  OTH SEG
  -------      ------  ------  ------  ------  ------ -------  -------
  MEAN          OBS    84.86  110.51  45.79<= 45.79   40.43    14.81
                1      83.78  110.59  43.28   46.13   37.59    15.40
                2      81.99  109.36  43.85   46.74   37.59    14.80
                3      84.97  112.00  45.65   48.66   40.65    14.77
                4         .       .      .       .       .        .

  RELATIVE      1      -.01     .00   -.05    -.05    -.07      .04
  ERROR         2      -.03    -.01   -.04     .02    -.07      .00
                3       .00     .01    .00     .06     .01      .00
                4         .       .      .       .       .        .

  RELATIVE      1       .01     .00    .05     .05     .07      .04
  ABSOLUTE      2       .03     .01    .04     .02     .07      .00
  ERROR         3       .00     .01    .00     .06     .01      .00
                4         .       .      .       .       .        .

  RELATIVE      1       .18     .12    .13     .13     .07      .10
  STANDARD      2       .14     .08    .13     .14     .07      .10
  ERROR         3       .11     .07    .08     .12     .01      .09
                4         .       .      .       .       .        .
  --------------------------------------------------------------------
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     RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

   LINE: 209 / DIRECTION:   1 / TIME PERIOD:   1  NO. TRIPS:   1

                NO.                  PASS    MAX ADJ MAX  BRD IN   BRD IN
   MEASURE    POINTS    BRDGS       MILES    LOAD    LOAD  MAJ SEG  OTH SEG
   -------    ------    ------      ------   ------  ------ -------  -------
   MEAN         OBS     24.00      107.00   16.00<= 16.00   4.00     2.00
                1       28.60      101.70   16.90   18.02   5.20     2.17
                2       28.90       98.90   16.90   18.02   5.00     2.32
                3       27.00       98.20   16.90   18.02   4.67     2.17
                4         .           .        .       .       .        .

   RELATIVE      1        .19       -.05      .06     .06     .30      .08
   ERROR         2        .20       -.08      .06     .13     .25      .16
                 3        .12       -.08      .06     .13     .17      .08
                 4         .          .        .       .       .        .

   RELATIVE      1        .19        .05      .06     .06     .30      .08
   ABSOLUTE      2        .20        .08      .06     .13     .25      .16
   ERROR         3        .12        .08      .06     .13     .17      .08
                 4         .          .        .       .       .        .

   RELATIVE      1        .19        .05      .06     .06     .27      .36
   STANDARD      2        .20        .08      .06     .13     .28      .37
   ERROR         3        .12        .08      .06     .13     .34      .34
                 4         .          .        .       .       .        .
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     RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

   LINE: 209 / DIRECTION:   3 / TIME PERIOD:   1  NO. TRIPS:    .

                NO.                  PASS    MAX ADJ MAX  BRD IN   BRD IN
   MEASURE    POINTS    BRDGS       MILES    LOAD    LOAD  MAJ SEG  OTH SEG
   -------    ------    ------      ------   ------  ------ -------  -------
   MEAN         OBS       .           .        .  <=   .       .        .
                1         .           .        .       .       .        .
                2         .           .        .       .       .        .
                3       8.30        21.80     5.30    5.65    2.53      .23
                4         .           .        .       .       .        .

   RELATIVE      1         .           .        .       .       .        .
   ERROR         2         .           .        .       .       .        .
                 3        .66         .11      .06     .13     .52       .
                 4         .           .        .       .       .        .

   RELATIVE      1         .           .        .       .       .        .
   ABSOLUTE      2         .           .        .       .       .        .
   ERROR         3        .66         .11      .06     .13     .52       .
                 4         .           .        .       .       .        .

   RELATIVE      1         .           .        .       .       .        .
   STANDARD      2         .           .        .       .       .        .
   ERROR         3        .66         .11      .06     .13     .67     1.00
                 4         .           .        .       .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 209 / DIRECTION:  1 / TIME PERIOD:  2  NO. TRIPS:  11
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	NO.		PASS	MAX	ADJ MAX	BRD IN	BRD IN
MEASURE	POINTS	BRDGS	MILES	LOAD	LOAD	MAJ SEG	OTH SEG
MEAN	OBS	80.27	239.97	40.09<=	40.09	14.30	6.23
	1	92.68	280.16	39.48	42.09	16.82	7.03
	2	83.87	253.85	38.24	40.76	14.35	6.81
	3	81.16	249.73	38.58	41.13	13.95	6.55
	4	.	.	.	.	.	.
RELATIVE	1	.15	.17	-.02	-.02	.18	.13
ERROR	2	.04	.06	-.05	.02	.00	.09
	3	.01	.04	-.04	.03	-.02	.05
	4	.	.	.	.	.	.
RELATIVE	1	.15	.17	.02	.02	.18	.13
ABSOLUTE	2	.04	.06	.05	.02	.00	.09
ERROR	3	.01	.04	.04	.03	.02	.05
	4	.	.	.	.	.	.
RELATIVE	1	.22	.24	.09	.09	.10	.39
STANDARD	2	.13	.14	.09	.07	.09	.38
ERROR	3	.07	.06	.08	.07	.06	.37
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 209 / DIRECTION:  3 / TIME PERIOD:  2  NO. TRIPS:  10
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	NO.		PASS	MAX	ADJ MAX	BRD IN	BRD IN
MEASURE	POINTS	BRDGS	MILES	LOAD	LOAD	MAJ SEG	OTH SEG
MEAN	OBS	69.10	213.83	30.40<=	30.40	11.30	5.87
	1	78.05	224.03	30.54	32.56	13.59	6.21
	2	77.76	227.73	31.54	33.62	13.45	6.24
	3	68.81	204.70	27.07	28.86	11.38	5.78
	4	.	.	.	.	.	.
RELATIVE	1	.13	.05	.00	.00	.20	.06
ERROR	2	.13	.07	.04	.11	.19	.06
	3	.00	-.04	-.11	-.05	.01	-.01
	4	.	.	.	.	.	.
RELATIVE	1	.13	.05	.00	.00	.20	.06
ABSOLUTE	2	.13	.07	.04	.11	.19	.06
ERROR	3	.00	.04	.11	.05	.01	.01
	4	.	.	.	.	.	.
RELATIVE	1	.50	.48	.47	.47	.15	.25
STANDARD	2	.46	.33	.36	.39	.16	.22
ERROR	3	.23	.11	.15	.11	.12	.20
	4	.	.	.	.	.	.

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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 209 / DIRECTION:   1 / TIME PERIOD:   3  NO. TRIPS:  12

              NO.              PASS    MAX ADJ MAX    BRD IN    BRD IN
MEASURE      POINTS   BRDGS    MILES   LOAD    LOAD   MAJ SEG   OTH SEG
-------      ------   -----    -----   ----    ----   -------   -------
MEAN          OBS     30.75    78.60  13.92<= 13.92    4.81      2.72
               1      28.27    73.27   9.67   10.30    5.10      2.16
               2      31.16    83.09  10.77   11.48    5.51      2.44
               3      28.76    75.11  10.84   11.56    4.96      2.32
               4        .        .       .       .       .         .

RELATIVE       1      -.08     -.07    -.31    -.31     .06      -.21
ERROR          2       .01      .06    -.23    -.18     .15      -.10
               3      -.06     -.04    -.22    -.17     .03      -.15
               4        .        .       .       .       .         .

RELATIVE       1       .08      .07     .31     .31     .06       .21
ABSOLUTE       2       .01      .06     .23     .18     .15       .10
ERROR          3       .06      .04     .22     .17     .03       .15
               4        .        .       .       .       .         .

RELATIVE       1       .36      .19     .46     .46     .13       .37
STANDARD       2       .31      .13     .41     .39     .10       .34
ERROR          3       .31      .13     .41     .39     .08       .37
               4        .        .       .       .       .         .
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   RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 209 / DIRECTION:   3 / TIME PERIOD:   3  NO. TRIPS:  13

              NO.              PASS    MAX ADJ MAX    BRD IN    BRD IN
MEASURE      POINTS   BRDGS    MILES   LOAD    LOAD   MAJ SEG   OTH SEG
-------      ------   -----    -----   ----    ----   -------   -------
MEAN          OBS     35.85    99.28  16.46<= 16.46    7.05      2.45
               1      38.83   115.96  15.46   16.48    7.53      2.71
               2      36.85   108.03  15.38   16.40    7.15      2.56
               3      35.74   101.87  15.65   16.69    7.11      2.40
               4        .        .       .       .       .         .

RELATIVE       1       .08      .17    -.06    -.06     .07       .11
ERROR          2       .03      .09    -.07     .00     .01       .05
               3       .00      .03    -.05     .01     .01      -.02
               4        .        .       .       .       .         .

RELATIVE       1       .08      .17     .06     .06     .07       .11
ABSOLUTE       2       .03      .09     .07     .00     .01       .05
ERROR          3       .00      .03     .05     .01     .01       .02
               4        .        .       .       .       .         .

RELATIVE       1       .43      .35     .17     .17     .15       .33
STANDARD       2       .26      .21     .11     .09     .12       .33
ERROR          3       .22      .12     .09     .07     .11       .34
               4        .        .       .       .       .         .
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          RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

          LINE: 209 / DIRECTION:  1 / TIME PERIOD:  4  NO. TRIPS:  14
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	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	61.29	186.46	26.50<=	26.50	11.17	4.86
	1	64.14	187.94	24.12	25.72	11.51	4.94
	2	67.65	199.20	26.21	27.94	12.28	5.13
	3	60.66	179.18	26.90	28.68	10.50	5.08
	4	.	.	.	.	.	.
RELATIVE	1	.05	.01	-.09	-.09	.03	.02
ERROR	2	.10	.07	-.01	.05	.10	.06
	3	-.01	-.04	.02	.08	-.06	.05
	4	.	.	.	.	.	.
RELATIVE	1	.05	.01	.09	.09	.03	.02
ABSOLUTE	2	.10	.07	.01	.05	.10	.06
ERROR	3	.01	.04	.02	.08	.06	.05
	4	.	.	.	.	.	.
RELATIVE	1	.15	.25	.25	.25	.17	.32
STANDARD	2	.17	.21	.19	.22	.16	.31
ERROR	3	.24	.16	.40	.43	.16	.35
	4	.	.	.	.	.	.

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          RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

          LINE: 209 / DIRECTION:  3 / TIME PERIOD:  4  NO. TRIPS:  12
```

	NO. POINTS	BRDGS	PASS MILES	MAX LOAD	ADJ MAX LOAD	BRD IN MAJ SEG	BRD IN OTH SEG
MEAN	OBS	82.75	241.84	37.92<=	37.92	17.61	4.99
	1	92.70	270.42	35.87	38.24	18.46	6.22
	2	89.03	256.99	36.65	39.07	18.02	5.83
	3	85.78	248.48	37.22	39.67	17.98	5.31
	4	.	.	.	.	.	.
RELATIVE	1	.12	.12	-.05	-.05	.05	.25
ERROR	2	.08	.06	-.03	.03	.02	.17
	3	.04	.03	-.02	.05	.02	.06
	4	.	.	.	.	.	.
RELATIVE	1	.12	.12	.05	.05	.05	.25
ABSOLUTE	2	.08	.06	.03	.03	.02	.17
ERROR	3	.04	.03	.02	.05	.02	.06
	4	.	.	.	.	.	.
RELATIVE	1	.31	.28	.17	.17	.10	.32
STANDARD	2	.18	.13	.06	.07	.07	.29
ERROR	3	.08	.05	.04	.07	.07	.31
	4	.	.	.	.	.	.

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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 209 / DIRECTION:  1 / TIME PERIOD:  5  NO. TRIPS:   5

              NO.                  PASS    MAX ADJ MAX   BRD IN   BRD IN
MEASURE      POINTS    BRDGS      MILES    LOAD    LOAD  MAJ SEG  OTH SEG
-------      ------    -----      -----    ----    ----  -------  -------
MEAN          OBS      21.40      68.94  11.60<=  11.60    3.87     1.63
               1       21.26      71.72   9.72    10.36    4.29     1.40
               2       21.98      73.00  11.08    11.81    4.33     1.50
               3       19.58      61.34  11.08    11.81    3.97     1.28
               4         .          .       .        .       .        .

RELATIVE       1        -.01       .04    -.16     -.16     .11     -.14
ERROR          2         .03       .06    -.04      .02     .12     -.08
               3        -.09      -.11    -.04      .02     .03     -.22
               4         .          .       .        .       .        .

RELATIVE       1         .01       .04     .16      .16     .11      .14
ABSOLUTE       2         .03       .06     .04      .02     .12      .08
ERROR          3         .09       .11     .04      .02     .03      .22
               4         .          .       .        .       .        .

RELATIVE       1         .22       .16     .18      .18     .30      .56
STANDARD       2         .23       .20     .07      .05     .31      .53
ERROR          3         .20       .14     .07      .05     .25      .59
               4         .          .       .        .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 209 / DIRECTION:  3 / TIME PERIOD:  5  NO. TRIPS:   5

              NO.                  PASS    MAX ADJ MAX   BRD IN   BRD IN
MEASURE      POINTS    BRDGS      MILES    LOAD    LOAD  MAJ SEG  OTH SEG
-------      ------    -----      -----    ----    ----  -------  -------
MEAN          OBS      28.60      97.74  14.80<=  14.80    6.73     1.40
               1       23.46      90.38  14.00    14.92    5.89      .96
               2       23.24      87.22  13.64    14.54    5.91      .92
               3       24.90      92.02  13.82    14.73    6.03     1.13
               4         .          .       .        .       .        .

RELATIVE       1        -.18      -.08    -.05     -.05    -.12     -.31
ERROR          2        -.19      -.11    -.08     -.02    -.12     -.34
               3        -.13      -.06    -.07      .00    -.10     -.19
               4         .          .       .        .       .        .

RELATIVE       1         .18       .08     .05      .05     .12      .31
ABSOLUTE       2         .19       .11     .08      .02     .12      .34
ERROR          3         .13       .06     .07      .00     .10      .19
               4         .          .       .        .       .        .

RELATIVE       1         .30       .14     .25      .25     .20      .61
STANDARD       2         .24       .16     .10      .09     .16      .60
ERROR          3         .20       .06     .09      .08     .15      .42
               4         .          .       .        .       .        .
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 260 / DIRECTION:  3 / TIME PERIOD:   1  NO. TRIPS:   1

              NO.              PASS     MAX ADJ MAX   BRD IN   BRD IN
  MEASURE   POINTS   BRDGS    MILES    LOAD    LOAD   MAJ SEG  OTH SEG
  -------   ------   ------   ------   ------  ------  -------  -------
  MEAN       OBS    163.00   1052.9   63.00(= 63.00    30.25     6.89
              1     123.80    815.80   43.60   46.48    17.17     6.12
              2     174.60   1128.3    64.20   68.44    26.95     7.42
              3     178.70   1143.0    64.20   68.44    26.97     7.87
              4     159.10    997.10   63.30   67.48    23.32     7.31

  RELATIVE      1     -.32     -.23    -.31    -.31     -.43     -.11
  ERROR         2     -.05      .07     .02     .09     -.11      .08
                3     -.02      .09     .02     .09     -.11      .14
                4     -.13     -.05     .00     .07     -.23      .06

  RELATIVE      1      .32      .23     .31     .31      .43      .11
  ABSOLUTE      2      .05      .07     .02     .09      .11      .08
  ERROR         3      .02      .09     .02     .09      .11      .14
                4      .13      .05     .00     .07      .23      .06

  RELATIVE      1      .32      .23     .31     .31      .83      .32
  STANDARD      2      .05      .07     .02     .09      .25      .29
  ERROR         3      .02      .09     .02     .09      .25      .20
                4      .13      .05     .00     .07      .37      .23
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 260 / DIRECTION:  1 / TIME PERIOD:   2  NO. TRIPS:  11

              NO.              PASS     MAX ADJ MAX   BRD IN   BRD IN
  MEASURE   POINTS   BRDGS    MILES    LOAD    LOAD   MAJ SEG  OTH SEG
  -------   ------   ------   ------   ------  ------  -------  -------
  MEAN       OBS    160.82    750.17   57.00(= 57.00    20.27     8.27
              1     191.84    795.10   57.51   61.30     .        8.60
              2     179.96    734.99   52.44   55.90     .        8.48
              3     182.95    744.18   52.32   55.77     .        8.74
              4     190.99    786.04   55.55   59.21     .        8.92

  RELATIVE      1      .19      .06     .01     .01      .        .04
  ERROR         2      .12     -.02    -.08    -.02      .        .03
                3      .14     -.01    -.08    -.02      .        .06
                4      .19      .05    -.03     .04      .        .08

  RELATIVE      1      .19      .06     .01     .01      .        .04
  ABSOLUTE      2      .12      .02     .08     .02      .        .03
  ERROR         3      .14      .01     .08     .02      .        .06
                4      .19      .05     .03     .04      .        .08

  RELATIVE      1      .35      .23     .26     .26      .        .27
  STANDARD      2      .21      .12     .14     .12      .        .26
  ERROR         3      .22      .12     .14     .12      .        .28
                4      .24      .10     .05     .06      .        .28
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 260 / DIRECTION:   3 / TIME PERIOD:   2  NO. TRIPS:   6

              NO.                  PASS    MAX ADJ MAX   BRD IN   BRD IN
 MEASURE    POINTS    BRDGS       MILES    LOAD    LOAD  MAJ SEG  OTH SEG
 -------    ------    ------      ------   ------  ------ -------  -------
 MEAN        OBS     165.53      606.78   48.62<=  48.62   21.53     8.82
              1      143.17      538.15   40.90    43.60   20.57     6.77
              2      171.87      680.63   48.93    52.16   23.87     8.49
              3      171.10      670.10   51.85    55.27   23.61     8.52
              4      160.10      611.22   49.10    52.34   22.76     7.67

 RELATIVE      1       -.14        -.11    -.16     -.16    -.04      -.23
 ERROR         2        .04         .12     .01      .07     .11      -.04
               3        .03         .10     .07      .14     .10      -.03
               4       -.03         .01     .01      .08     .06      -.13

 RELATIVE      1        .14         .11     .16      .16     .04       .23
 ABSOLUTE      2        .04         .12     .01      .07     .11       .04
 ERROR         3        .03         .10     .07      .14     .10       .03
               4        .03         .01     .01      .08     .06       .13

 RELATIVE      1        .48         .44     .41      .41     .26       .45
 STANDARD      2        .36         .20     .19      .21     .16       .26
 ERROR         3        .26         .16     .07      .14     .12       .26
               4        .22         .09     .14      .16     .11       .32
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

 LINE: 260 / DIRECTION:   1 / TIME PERIOD:   3  NO. TRIPS:  14

              NO.                  PASS    MAX ADJ MAX   BRD IN   BRD IN
 MEASURE    POINTS    BRDGS       MILES    LOAD    LOAD  MAJ SEG  OTH SEG
 -------    ------    ------      ------   ------  ------ -------  -------
 MEAN        OBS     129.86      464.14   34.21<=  34.21   17.21     7.00
              1      239.06      739.02   56.16    59.86   29.53     8.63
              2      171.02      555.16   39.67    42.29   17.71     8.37
              3      162.05      546.16   39.64    42.25   17.71     7.34
              4      169.09      555.13   40.99    43.69   20.06     7.53

 RELATIVE      1        .84         .59     .64      .64     .72       .23
 ERROR         2        .32         .20     .16      .24     .03       .20
               3        .25         .18     .16      .23     .03       .05
               4        .30         .20     .20      .28     .17       .08

 RELATIVE      1        .84         .59     .64      .64     .72       .23
 ABSOLUTE      2        .32         .20     .16      .24     .03       .20
 ERROR         3        .25         .18     .16      .23     .03       .05
               4        .30         .20     .20      .28     .17       .08

 RELATIVE      1       1.08         .74     .84      .84     .14       .23
 STANDARD      2        .39         .30     .24      .31     .19       .23
 ERROR         3        .30         .29     .24      .31     .19       .18
               4        .39         .25     .28      .35     .09       .19
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 260 / DIRECTION:  3 / TIME PERIOD:  3  NO. TRIPS:   5

               NO.              PASS    MAX  ADJ MAX   BRD IN   BRD IN
  MEASURE    POINTS   BRDGS    MILES   LOAD     LOAD  MAJ SEG  OTH SEG
  -------    ------   ------   ------   ----   ------  -------  -------
  MEAN         OBS   161.80   653.24   39.60<= 39.60    21.20     8.56
               1     147.62   576.74   33.28   35.48    20.42     7.32
               2     158.40   617.54   36.50   38.91    21.93     7.85
               3     165.32   642.66   36.50   38.91    22.01     8.59
               4     175.24   687.56   41.12   43.83    23.40     9.07

  RELATIVE      1     -.09     -.12     -.16    -.16     -.04     -.14
  ERROR         2     -.02     -.05     -.08    -.02      .03     -.08
                3      .02     -.02     -.08    -.02      .04      .00
                4      .08      .05      .04     .11      .10      .06

  RELATIVE      1      .09      .12      .16     .16      .04      .14
  ABSOLUTE      2      .02      .05      .08     .02      .03      .08
  ERROR         3      .02      .02      .08     .02      .04      .00
                4      .08      .05      .04     .11      .10      .06

  RELATIVE      1      .24      .24      .32     .32      .24      .28
  STANDARD      2      .07      .10      .12     .10      .15      .24
  ERROR         3      .08      .10      .12     .10      .15      .22
                4      .15      .16      .15     .19      .16      .19
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 260 / DIRECTION:  1 / TIME PERIOD:  4  NO. TRIPS:  16

               NO.              PASS    MAX  ADJ MAX   BRD IN   BRD IN
  MEASURE    POINTS   BRDGS    MILES   LOAD     LOAD  MAJ SEG  OTH SEG
  -------    ------   ------   ------   ----   ------  -------  -------
  MEAN         OBS   177.13   630.86   51.88<= 51.88    23.18    10.32
               1     167.45   685.36   43.22   46.08    24.57     7.88
               2     166.26   671.77   43.44   46.30    23.75     7.77
               3     181.07   706.10   50.14   53.45    23.75    10.83
               4     181.97   686.76   50.51   53.85    24.58    10.91

  RELATIVE      1     -.05      .09     -.17    -.17      .06     -.24
  ERROR         2     -.06      .06     -.16    -.11      .02     -.25
                3      .02      .12     -.03     .03      .02      .05
                4      .03      .09     -.03     .04      .06      .06

  RELATIVE      1      .05      .09      .17     .17      .06      .24
  ABSOLUTE      2      .06      .06      .16     .11      .02      .25
  ERROR         3      .02      .12      .03     .03      .02      .05
                4      .03      .09      .03     .04      .06      .06

  RELATIVE      1      .37      .53      .49     .49      .17      .46
  STANDARD      2      .25      .28      .35     .34      .14      .45
  ERROR         3      .18      .30      .25     .25      .14      .24
                4      .17      .24      .23     .24      .14      .22
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 260 / DIRECTION:   3 / TIME PERIOD:   4  NO. TRIPS:   10

               NO.                 PASS    MAX ADJ MAX    BRD IN    BRD IN
  MEASURE    POINTS    BRDGS      MILES   LOAD    LOAD   MAJ SEG   OTH SEG
  -------    ------    ------     ------  ------  ------  -------   -------
  MEAN         OBS    162.29     557.87  44.78(= 44.78    22.22      8.16
                1     161.62     551.23  38.52   41.06    21.84      8.25
                2     163.73     559.19  40.79   43.48    22.23      8.31
                3     165.59     564.87  40.72   43.41    22.43      8.43
                4     168.16     566.55  43.18   46.03    22.92      8.50

  RELATIVE      1       .00       -.01    -.14    -.14     -.02       .01
  ERROR         2       .01        .00    -.09    -.03      .00       .02
                3       .02        .01    -.09    -.03      .01       .03
                4       .04        .02    -.04     .03      .03       .04

  RELATIVE      1       .00        .01     .14     .14      .02       .01
  ABSOLUTE      2       .01        .00     .09     .03      .00       .02
  ERROR         3       .02        .01     .09     .03      .01       .03
                4       .04        .02     .04     .03      .03       .04

  RELATIVE      1       .29        .25     .40     .40      .14       .26
  STANDARD      2       .22        .19     .18     .17      .12       .25
  ERROR         3       .25        .21     .18     .17      .11       .25
                4       .17        .11     .06     .06      .07       .22
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----------------------------------------------------------------------
    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

  LINE: 260 / DIRECTION:   1 / TIME PERIOD:   5  NO. TRIPS:    4

               NO.                 PASS    MAX ADJ MAX    BRD IN    BRD IN
  MEASURE    POINTS    BRDGS      MILES   LOAD    LOAD   MAJ SEG   OTH SEG
  -------    ------    ------     ------  ------  ------  -------   -------
  MEAN         OBS     96.00     489.27  31.50(= 31.50    12.50      4.60
                1      64.45     454.07  20.62   21.99     9.38      2.69
                2      73.02     511.07  25.30   26.97    10.66      3.04
                3      76.60     524.87  26.07   27.80    10.78      3.35
                4      72.25     490.97  25.00   26.65    10.16      3.16

  RELATIVE      1      -.33       -.07    -.35    -.35     -.25      -.41
  ERROR         2      -.24        .04    -.20    -.14     -.15      -.34
                3      -.20        .07    -.17    -.12     -.14      -.27
                4      -.25        .00    -.21    -.15     -.19      -.31

  RELATIVE      1       .33        .07     .35     .35      .25       .41
  ABSOLUTE      2       .24        .04     .20     .14      .15       .34
  ERROR         3       .20        .07     .17     .12      .14       .27
                4       .25        .00     .21     .15      .19       .31

  RELATIVE      1       .44        .41     .46     .46      .37      1.79
  STANDARD      2       .27        .23     .27     .24      .27      1.53
  ERROR         3       .26        .26     .27     .24      .27      1.47
                4       .30        .23     .32     .29      .29      1.27
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    RIDE CHECK UPDATING -- LINE / DIRECTION / TIME PERIOD REPORT

LINE: 260 / DIRECTION:   3 / TIME PERIOD:   5  NO. TRIPS:   4

               NO.              PASS    MAX ADJ MAX  BRD IN   BRD IN
MEASURE      POINTS   BRDGS    MILES   LOAD    LOAD  MAJ SEG  OTH SEG
-------      ------   ------   ------  ------  ------ -------  -------
MEAN           OBS    68.70   238.75  26.40<= 26.40   8.79    3.72
                1     69.02   206.37  18.72   19.96   8.99    3.67
                2     79.02   240.65  24.35   25.96  11.12    3.84
                3     83.52   254.42  26.75   28.52  12.81    3.59
                4     88.07   266.62  26.40   28.14  13.31    3.87

RELATIVE        1      .00     -.14    -.29    -.29    .02    -.01
ERROR           2      .15      .01    -.08    -.02    .27     .03
                3      .22      .07     .01     .08    .46    -.04
                4      .28      .12     .00     .07    .51     .04

RELATIVE        1      .00      .14     .29     .29    .02     .01
ABSOLUTE        2      .15      .01     .08     .02    .27     .03
ERROR           3      .22      .07     .01     .08    .46     .04
                4      .28      .12     .00     .07    .51     .04

RELATIVE        1      .35      .27     .46     .46    .30     .60
STANDARD        2      .45      .16     .19     .19    .24     .53
ERROR           3      .32      .11     .04     .09    .25     .42
                4      .38      .17     .04     .07    .25     .30
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