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# Peacekeeper Rail Garrison Train Dynamics Testing and Train Mobility Evaluation

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16. Abstract  Tests were performed on the Peacekeeper Rail Garrison (PKRG) Train which included track worthiness, train handling, and train mobility. The track worthiness tests were conducted according to specifications in Chapter XI of the Association of American Railroads (AAR), <i>Manual of Standards and Recommended Practices</i> . Train handling tests included static brake tests, acceleration and braking on tangent track, braking on curved track, train resistance, and train holding on a grade. Train mobility tests were conducted on Atchison, Topeka and Santa Fe (AT&SF) commercial trackage including starting and stopping on ascending grades, starting and stopping on descending grades, operating over FRA Class 3,4, and 5 track, and operating on different weights of rail. No examination of ride comfort was addressed by the AAR.  The train performance in spiral negotiation resulted in high single wheel L/V's for the Fuel Car. The train also experienced difficulty in the constant curving tests. Test speeds above 24 mph were not tested on curves greater than 7.5 degrees.  None of the span bolster cars had hand brake ratios which met the AAR specification of 11 percent or greater. This will severely limit the grade holding ability of the train.  The locomotive independent air brakes could not hold the train on a 2 percent grade. Holding the train on a grade is important because the train brakes must be released and fully recharged before the train can move. If the independent air brakes can not hold the train, hand brakes on the cars must be set.  The PKRG train negotiated FRA Class 3, 4, and 5 track, and grades of over 2.0 percent, and curves up to 10 degrees without derailment during the Train Mobility Evaluation Tests.					
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## EXECUTIVE SUMMARY

Train performance tests performed on the United States Air Force, Peacekeeper Rail Garrison test train, following Association of American Railroads Chapter XI guidelines yielded results which fell within criteria that indicate the likelihood of safe train performance with the exception of curving.

The Association of American Railroads (AAR), Transportation Test Center (TTC), Pueblo, Colorado, has been contracted by the Federal Railroad Administration (FRA) to perform train safety and performance tests on the Peacekeeper Rail Garrison (PKRG) train according to specifications in Chapter XI, of the AAR's, M-1001, *Manual of Standards and Recommended Practices* and according to the Boeing General Test Plan.

The PKRG test train consisted of two GP40 locomotives, a Fuel Car, a Maintenance Car, two Security Cars, two Missile Launch Cars, and a Launch Control Car. The overall objective of this test program was to examine the suitability of the PKRG train for railroad service through on-track testing.

Chapter XI states that values better than a criteria, outlined in this report, are regarded as indicating the likelihood of safe performance. With the exception of curving and spiral negotiation, the train performed within the Chapter XI criteria. The Fuel Car performance in twist and roll, and pitch and bounce was within Chapter XI limits but by a very small margin. The main reason for poor Fuel Car performance was the truck spacing. Twist and roll, yaw and sway, and pitch and bounce contain perturbations of a 39-foot wavelength. It would be likely that a car with 39-foot truck spacing would be most sensitive to such perturbations or multiples of that wavelength. The truck spacing on this car was 35 feet, 5 inches. A wavelength of 39 feet was chosen to be most typical of excitation expected from the track due to the length of individual rail pieces in bolted track. The others cars in the PKRG train have truck or span bolster center spacing in excess of 60 feet. Perturbations of other wavelength are possible but less likely. Multiples of 62 to 64 feet will provide more input to the train than the Chapter XI, 39-foot wavelengths.

The performance of the consist in the various curves and spirals was difficult to quantify based on these tests. The Security Car had never been curve tested individually and the Launch Control Car curve testing was abandoned after the first 16 mph test at the direction of the USAF. The uncertainty of the Rockwell cars' performance in curving combined with the shortage of instrumented wheel sets and the observation of scrapes on the wheel flanges resulted in abandonment of 10- and 12-degree curve testing after the 24 mph run.

Static brake tests revealed substandard performance of the span bolster car hand brakes. This will severely limit the grade holding ability of the train.

The PKRG Train negotiated FRA Class 3, 4, and 5 track, and grades of over 2.0 percent, and up to 10-degree curves without derailment during the Train Mobility Evaluation. Since there were no instrumented wheel sets and the roll gyro and accelerometer data was acquired by Rockwell and analyzed by Boeing, no other conclusion about dynamic performance can be made by the AAR.

The following recommendations are offered:

- Post test modeling should be performed to reconcile measured and predicted performance during 7.3.1a testing and to examine consist performance in dynamic curving, and yaw and sway.
- The Launch Control Car single car testing should be completed to include tests in the 10- and 12-degree curves with four instrumented wheel sets to assess the true curving ability of the car.
- The Security Car should be tested to include 10- and 12-degree curving tests and high speed stability tests as well as all other Chapter XI tests to assess the track worthiness of the car.
- The Yaw and Sway Test should be modeled with the actual amplitudes in perturbations. If the model predictions match the test results, then predictions should be made with the Chapter XI specified perturbations.

- There has been some question regarding the similarity between the Engineering Model (EM) cars which were tested, and the Operational Models (OM). The difference in the moments of inertia between the concrete ballast and the actual payloads should be closely examined. When the OM designs are complete, the consist should be modeled with the Train Dynamic Model (TDM) and ultimately tested.
- Some subtle changes in the design and operation of the brake system should be made. The operational scenario for the PKRG train is more similar to a passenger car than a freight train. Helper units are sometimes required for braking a freight train in mountainous terrain. This may not be feasible for PKRG. Therefore, a train line pressure of 110 psi should be considered to increase the overall braking ratio for the train, improving stop distance and grade handling.
- The hand brakes on the span bolster cars should be redesigned to give higher net braking ratios. The improved hand brake would improve grade holding.
- It was apparent that ATSF felt that a third locomotive was necessary for power and braking on steeper grades. For this reason, the USAF may consider a third locomotive for normal operation. The ability of the locomotives to hold the train on a grade would also improve. In the operational scenario, no provisions were made for setting and releasing hand brakes while on the network. It would be difficult for a crew member to release the hand brakes on the train and still be able to climb aboard one of the locomotives.

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## 1.0 INTRODUCTION

The Association of American Railroads (AAR), Transportation Test Center (TTC), Pueblo, Colorado, has been contracted by the Federal Railroad Administration (FRA) to perform vehicle performance tests on the Peacekeeper Rail Garrison (PKRG) rail cars and Train according to specifications in Chapter XI, of the AAR's, M-1001, *Manual of Standards and Recommended Practices* and the Boeing General Test Plan (GTP).

These tests include full train track worthiness, braking, and acceleration. The PKRG train consists of two GP40 locomotives, a Fuel Car, a Maintenance Car, two Security Cars, two Missile Launch Cars, and a Launch Control Car. Individual car testing of a Launch Control Car, a Missile Launch Car, a Fuel Car, and a Maintenance Car preceded the full train test.

Train testing was coordinated by The Boeing Company for the United States Air Force (USAF) following the Boeing General Test Plan, Section 7.3.1. AAR's role was primarily to measure specific aspects of vehicle performance and provide the data to Boeing. Testing was split into two sections. The Train Dynamics Test (7.3.1A) performed at TTC included Chapter XI type perturbed track testing with instrumented wheel sets, braking, and acceleration. Train performance was to be predicted by the Train Dynamics Model (TDM) developed by AAR for the USAF under a separate agreement with FRA. The model was also to be validated with the test data.

The Train Mobility Evaluation (7.3.1B) performed on the Atchison, Topeka and Santa Fe (AT&SF) rail network consisted of braking, acceleration, grade handling, and normal operation over various classes of revenue track.

## **2.0 OBJECTIVE**

The overall objective of the PKRG test program was to demonstrate the acceptability of the Rail Garrison train design for a mobile missile launch platform. The program described in this document was a necessary step to achieve that goal.

AAR's objectives for the Train Dynamics Test and Train Handling Test were as follows.

- Predict performance of the PKRG train using the TDM
- Demonstrate PKRG train performance
- Validate TDM against PKRG train test results

AAR's objective for the Train Mobility Evaluation was to collect locomotive performance data and rail car roll angles while testing on the AT&SF rail network and provide the data with limited analysis to Boeing.

### **3.0 TEST DESCRIPTION AND PROCEDURES**

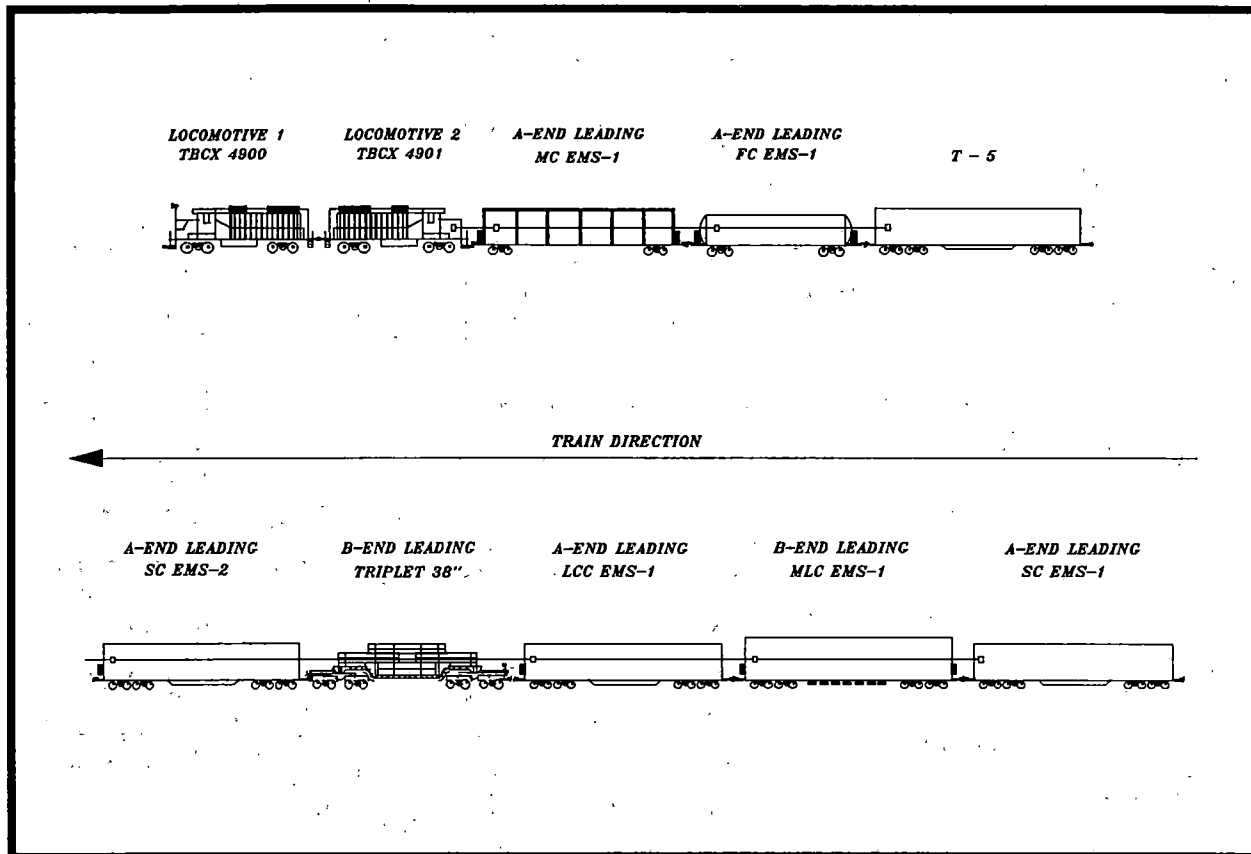
Testing was performed in three phases. The first phase involved Chapter XI type testing through curves and tangent perturbed and unperturbed track. Instrumented wheel sets, roll gyros, and accelerometers were used to measure the performance of each vehicle in the train. The second phase, train handling testing, involved braking and acceleration tests. Train stop distance and locomotive performance data were the primary measurements. The final phase involved operating the train on the commercial rail network to demonstrate the ability of the train to operate in a railroad environment.

#### **3.1 TRACK WORTHINESS TEST**

The track worthiness tests were conducted to assure an adequate margin of safe performance in normal operation of the train. These tests were conducted up to maximum train operating speed of 60 mph. All tests utilized instrumented wheel sets to measure lateral and vertical forces (L/V) between the wheel and rail. These wheel sets have modified Heuman profiles, which simulate worn wheel treads.

Results were compared to criteria as stated in Chapter XI. The primary criteria are tendency to wheel-climb derailment, as defined by the ratio of lateral to vertical wheel forces and tendency to cause rail rollover, as defined by the ratio of truck side lateral to vertical forces.

Due to the late arrival of one Missile Launch Car, the track worthiness testing was performed with a loaded depressed center flatcar substituted for one of the Missile Launch Cars. The T-5 Instrumentation Car was also attached to the train behind the Fuel Car for data collection purposes. Figure 3.1 shows the train dynamics test train.



**Figure 3.1 Train Dynamics Test Train**

Track worthiness testing consisted of seven separate tests. Figure 3.2 is a track location diagram. The specific maps for each test are found in individual test descriptions in Sections 3.1.1 through 3.1.7. The normal upper limit speed for Chapter XI tangent track testing is 70 mph. The USAF limited testing for this train to 60 mph for all tests.

The cars that made up the train were two locomotives, the Maintenance Car, the Fuel Car, the T-5 Instrumentation Car, the Security Car (TIC), the depressed Flat Car, the Launch Control Car, the Missile Launch Car, and the Security Car. All of the cars except the T-5 were instrumented. The Fuel Car, Security Car, and Missile Launch Car were equipped with instrumented wheel sets.

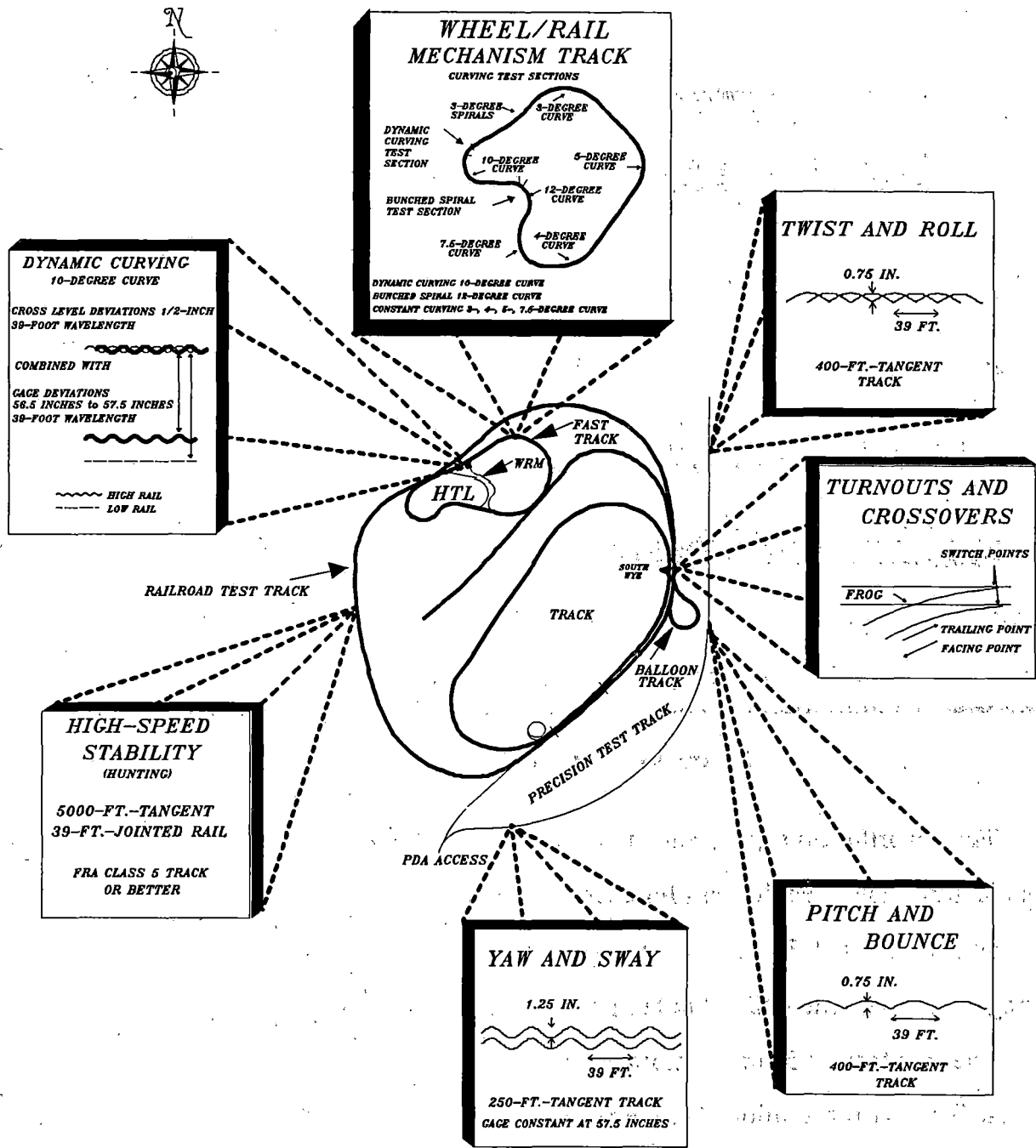


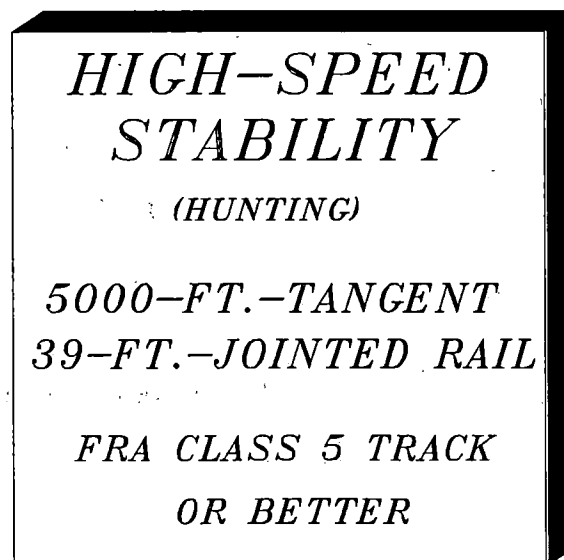
Figure 3.2 Track Location Diagram



### 3.1.1 High Speed Stability

A high speed stability or hunting test was conducted to confirm that hunting (lateral oscillating instability in the trucks) did not occur in any car within normal operating speeds of the train. Chapter XI limited the maximum lateral car body acceleration (g) to 1.0 g peak-to-peak, sustained for 20 seconds and the maximum axle sum to 1.3 sustained for 50 milliseconds. A single lateral acceleration of 1.5 g peak-to-peak is also a criterion. Hunting is inherent in some truck designs and is often seen in normally stable truck designs when components are allowed to wear beyond normal limits. If hunting occurs, the resonant speed is identified for operational considerations.

The train was operated at speeds up to 60 mph over 5,000 feet of tangent track with 39-foot jointed rail, FRA Class 5 or better. Axle sum L/V's and car body lateral accelerations were monitored for any unsafe conditions. Figure 3.3 shows the hunting test track details.



**Figure 3.3 Hunting Test Track**

### 3.1.2 Pitch and Bounce

The Pitch and Bounce Test is designed to determine the dynamic pitch and bounce response of each car as it is excited by vertical inputs from the track. Track, which generates this type of input, may be found at bridges, road crossings at grade, and where there is a change in the underlying vertical support structure to the track. This phenomenon can also occur when rail joints on both rails are in-phase. The Chapter XI criterion is a minimum vertical wheel load of 10 percent of the static vertical wheel load sustained for 50 milliseconds. Figure 3.4 describes the test zone.

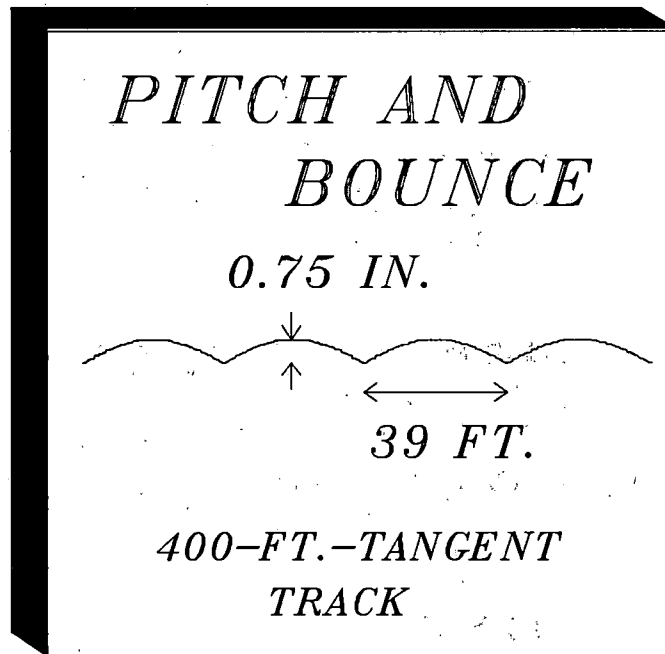
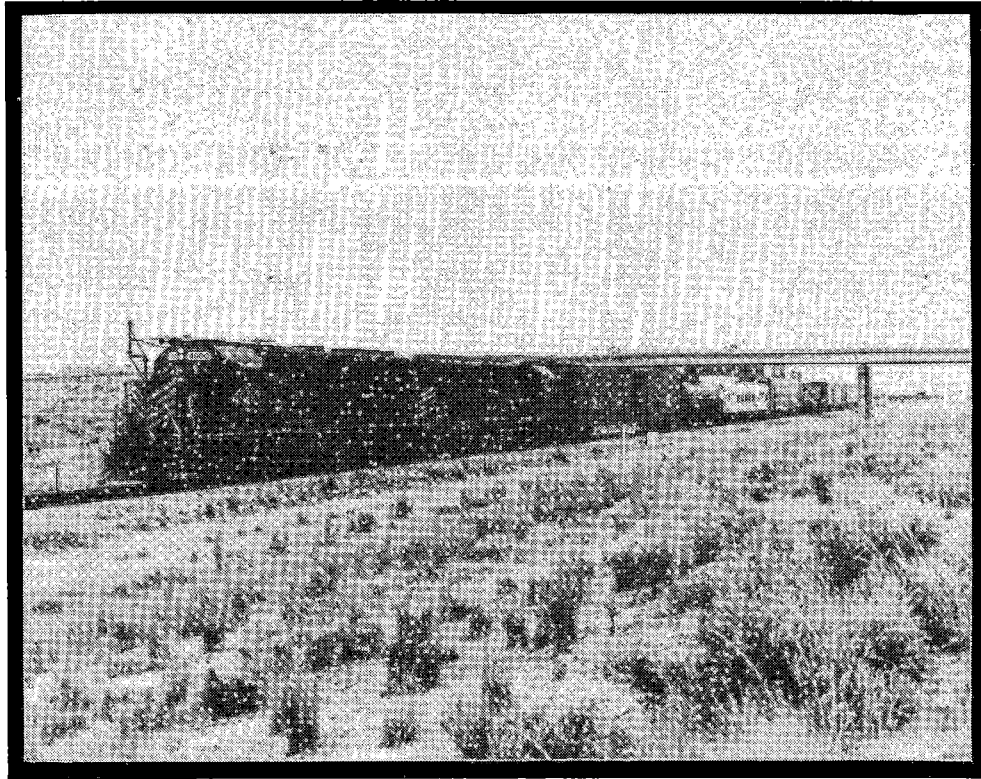


Figure 3.4 Pitch and Bounce Test Facility

The Pitch and Bounce Test was conducted on the Precision Test Track (PTT). The train was tested at speeds up to 60 mph on parallel jointed track with 0.75 inch vertical perturbations at 39-foot intervals in both rails. Figure 3.5 shows the test train negotiating the pitch and bounce test zone



**Figure 3.5 Pitch and Bounce Test Train**

### 3.1.3 Constant Curving

The constant curving tests were designed to determine each car's ability to negotiate well maintained track curves. The 95th percentile maximum wheel L/V of 0.8 or axle sum L/V of 1.3 (Chapter XI, Table 11.1) were the limiting criteria. This test would verify that the cars would not have wheel climb or impart large lateral forces to the rails during curving. Curving tests were performed on the Balloon Track and the Wheel/Rail Mechanisms Track (WRM). The dynamic curving perturbations were removed from the 10-degree curve on the WRM to accommodate PKRG testing. The train was operated at speeds corresponding to 3 inches underbalance, balance, and 3 inches overbalance for the superelevation in each curve. Figures 3.6 and 3.7 show the Balloon and WRM tracks. Some trackside instrumentation was in place to monitor full train performance.

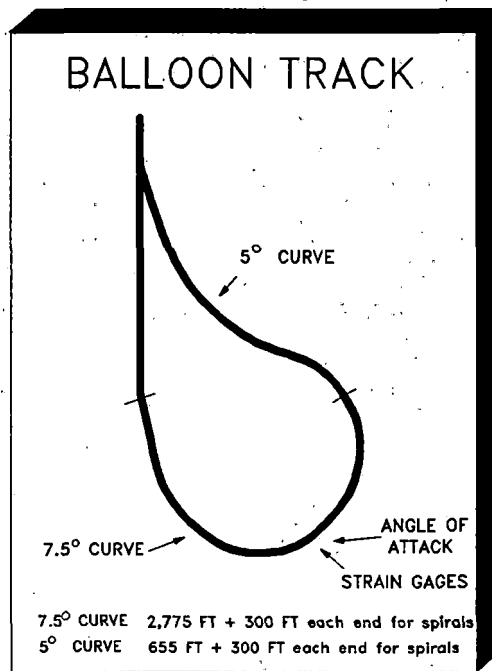
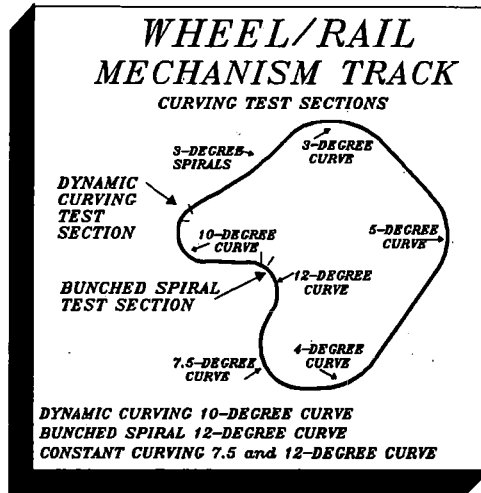


Figure 3.6 Balloon Track



**Figure 3.7 WRM Constant Curving Test Facility**

The USAF requested only curves less than 10 degrees be tested. The train was run through the 12-degree curve on the WRM only because it was impossible to stop between the 10- and 12-degree curves. The Launch Control Car had never been tested in the 12-degree curve at speeds above 24 mph; therefore, speeds in the 10-degree curve were restricted to 24 mph. The tests were run in both clockwise and counterclockwise directions on the Balloon Track and only in the counterclockwise direction on the WRM. Wheel L/V's were monitored real time to ensure safe test operation. Table 3.1 is a tabulation of the balance speeds for each curve on the WRM.

**Table 3.1 WRM Curve Descriptions and Test Speeds**

DEGREE OF CURVE	SUPER ELEVATION (inches)	BALANCE SPEED (mph)	+3 INCH SPEED (mph)	-3 INCH SPEED (mph)
Balloon - 5	4	30	40(42)	17(17)
Balloon - 7.5	3	30	40(38)	17(-)
WRM - 10	4	24	32(32)	12(12)
WRM - 12	5	25	32(31)	16(16)

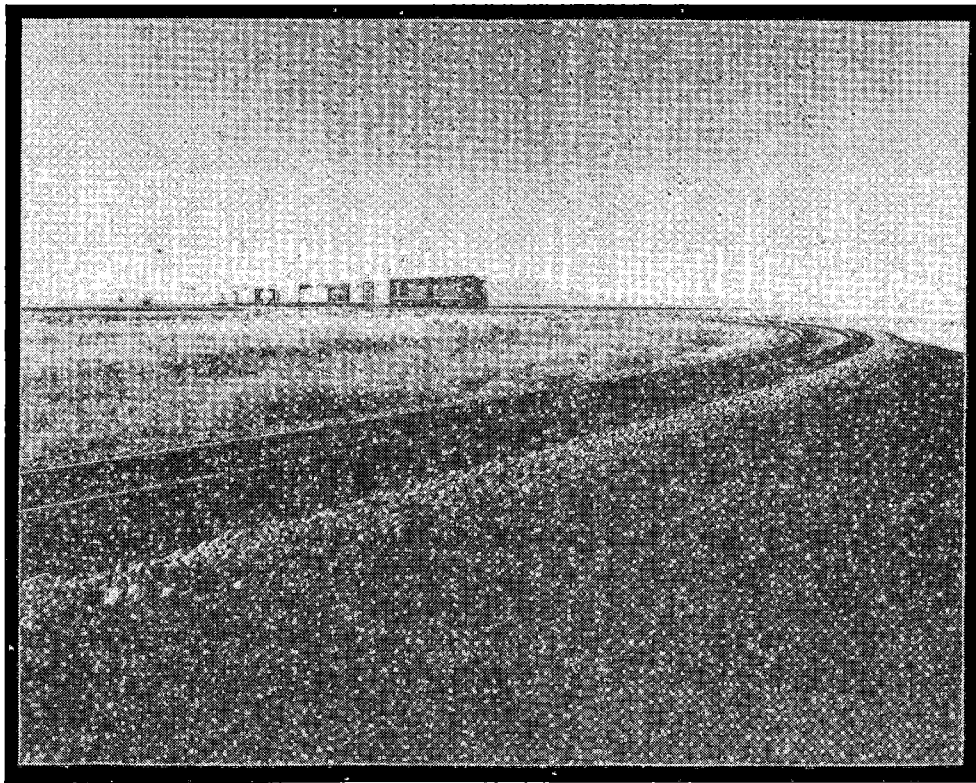
Note: Speeds in ( ) are calculated, others are actual test speeds.

Test speeds were determined using the following equation:

$$V = \sqrt{1480 \frac{(U + H)}{D}}$$

Where: U = unbalance in inches, H = superelevation in inches, D = degree of curvature, and V = speed in mph. In some cases the track speed limit was lower than the calculated speed for +3 inches. A track speed limit of 45 mph for the 3-, 4-, and 5-degree curves and 32 mph for all other curves was used in those cases. The speed calculated for -3 inches was zero or not possible in some cases (curves with less than 3 inches of superelevation). The following equation shows the method of test speed calculation for those cases. The PKRG test train is negotiating a curve in Figure 3.8.

$$V^*_{-3} = V_0 - (V_{+3} - V_0)$$



**Figure 3.8 Constant Curving Test Train**

### **3.1.4 Spiral Negotiation**

Spiral negotiation (curve entry and curve exit) tests were performed in conjunction with the Constant Curving Test. A spiral is the transition from a curve to a tangent track. This transition includes constant rates of change in cross-level and curvature with distance. The purpose of the exaggerated bunched spiral is to twist the trucks and the car body. Chapter XI states that the minimum acceptable vertical load of a wheel is 10 percent of the static wheel load and that the maximum wheel L/V is 0.8; both sustained for 50 milliseconds. This data was examined to verify that no wheel lift occurred and that no extreme wheel forces were measured.

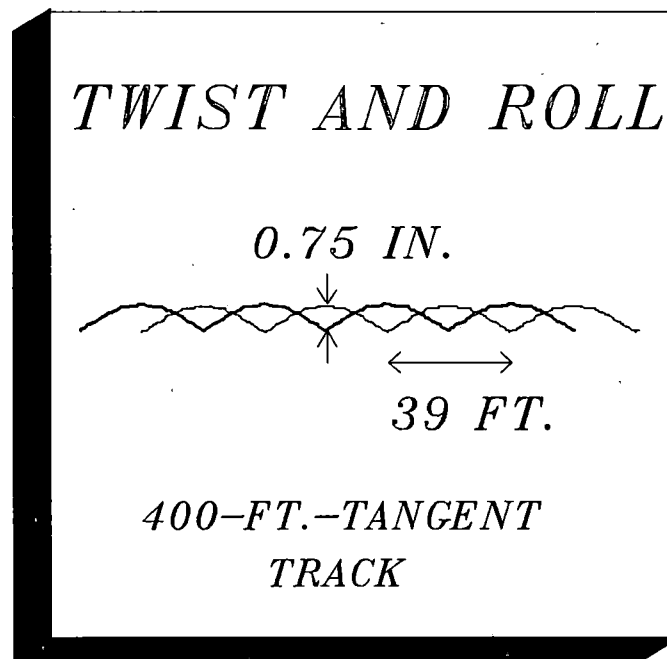
Curve entry and exit performance were examined for every spiral encountered even though Chapter XI only specified the bunched spiral. The bunched spiral was only examined as curve entry because the train only ran in the counterclockwise direction on the WRM. Single wheel L/V's and axle L/V's were monitored for any unsafe condition.

### **3.1.5 Buff and Draft Curving**

The Buff and Draft Curving Test is not a Chapter XI requirement but was developed to examine the ability of coupled cars to negotiate a curve while accelerating or decelerating without imparting large lateral forces to the rail or experiencing wheel climb. Buff and draft curving performance was examined during constant curving tests. A buff or draft force was developed by normal train handling procedures. A worst case buff or draft condition was not simulated. Single wheel L/V's and axle L/V's were monitored for any unsafe condition. Coupler longitudinal force was also monitored at various locations in the train.

### 3.1.6 Twist and Roll

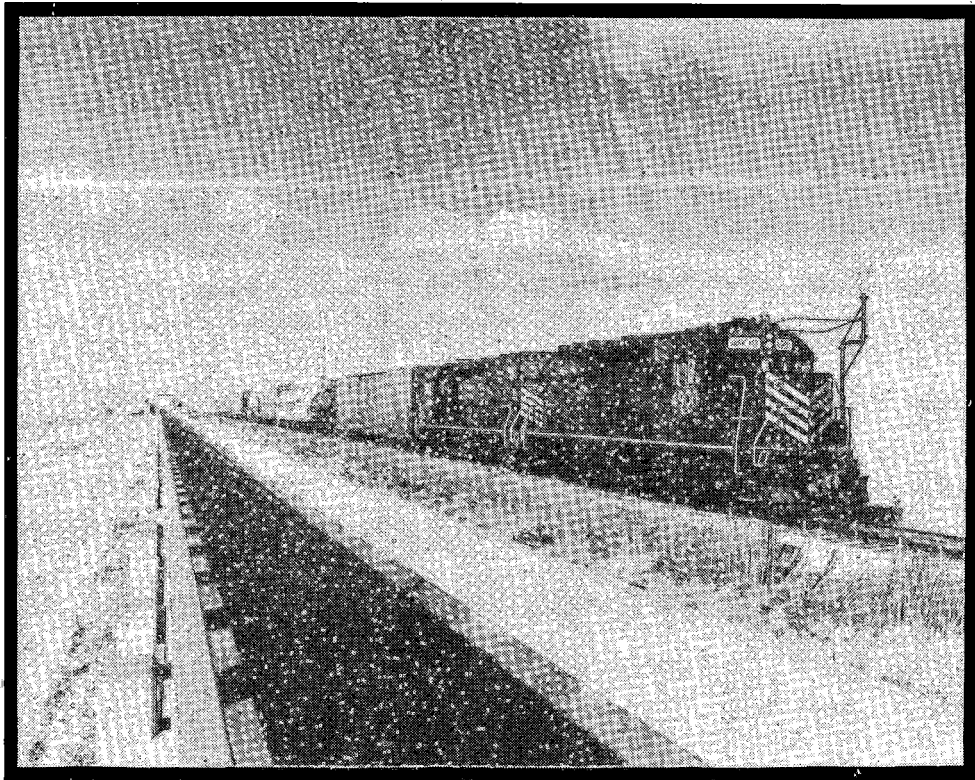
The Twist and Roll Test was conducted to determine the train's ability to negotiate cross-level perturbations. These perturbations excite the natural twist and roll motions of a car. This type of track input may be found in locations where rail joints are staggered up to 180 degrees out-of-phase or at weak spots in the track structure. Three criteria were given for this test: (1) a maximum roll angle of 6 degrees peak-to-peak, (2) a maximum axle sum  $L/V$  of 1.3 sustained for 50 milliseconds, and (3) a minimum vertical wheel load of 10 percent of the static vertical wheel load sustained for 50 milliseconds (Chapter XI). Figure 3.9 describes the test zone.



**Figure 3.9 Twist and Roll Test Facility**



The Twist and Roll Test was conducted on the PTT. The train was tested up to 30 mph on staggered jointed rail with a cross-level variation of 0.75 inches at 39-foot intervals. Chapter XI specified a loaded buffer car with a truck spacing greater than 45 feet. Figure 3.10 shows the test train approaching the twist and roll test zone.

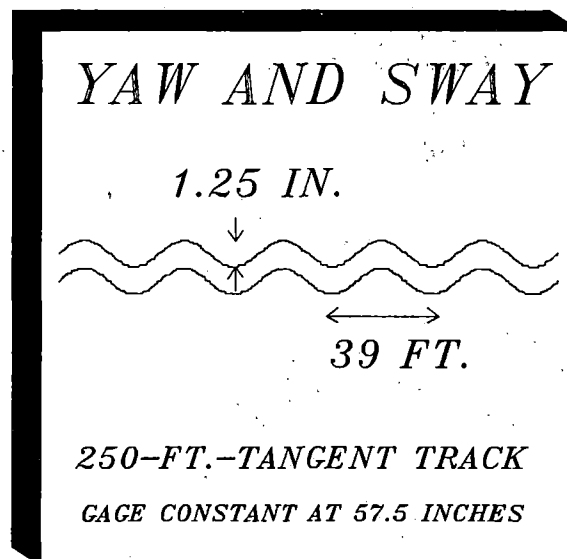


**Figure 3.10 Test Train in Twist and Roll**

### 3.1.7 Yaw and Sway

Yaw and sway tests were conducted to determine the ability of the train to negotiate laterally misaligned track, which excites a car in a lateral yaw and sway motion. Track that generates input of this type may be found where the underlying soil or ballast is unstable and allows the track to shift in the lateral direction. The limiting truck side L/V criterion is 0.6 and the maximum axle sum L/V criterion is 1.3 sustained for 50 milliseconds (Chapter XI). Due to logistic problems, the instrumented wheel sets were not relocated to measure truck side L/V.

The Yaw and Sway Test was conducted in accordance with Section 11.6.4. Station 21+00 to 26+00 of the PTT was the test site. This section had sinusoidal track alignment deviations of 39-foot wavelength and an amplitude of 1.0 inches peak-to-peak on both rails at a constant wide gage of 57.5 inches. These amplitudes were less than the 1.25 inches specified in Chapter XI. This was known before testing began, but it was impractical to adjust the perturbations due to cost and schedule. Figure 3.11 shows the test zone with 1.25-inch perturbations.



**Figure 3.11 Yaw and Sway Test Facility**

## **3.2 TRAIN HANDLING TEST**

The train was rearranged for braking and acceleration testing. The T-5 car was moved to the back of the train. The instrumented wheel sets were removed from the cars and the original wheel sets reinstalled.

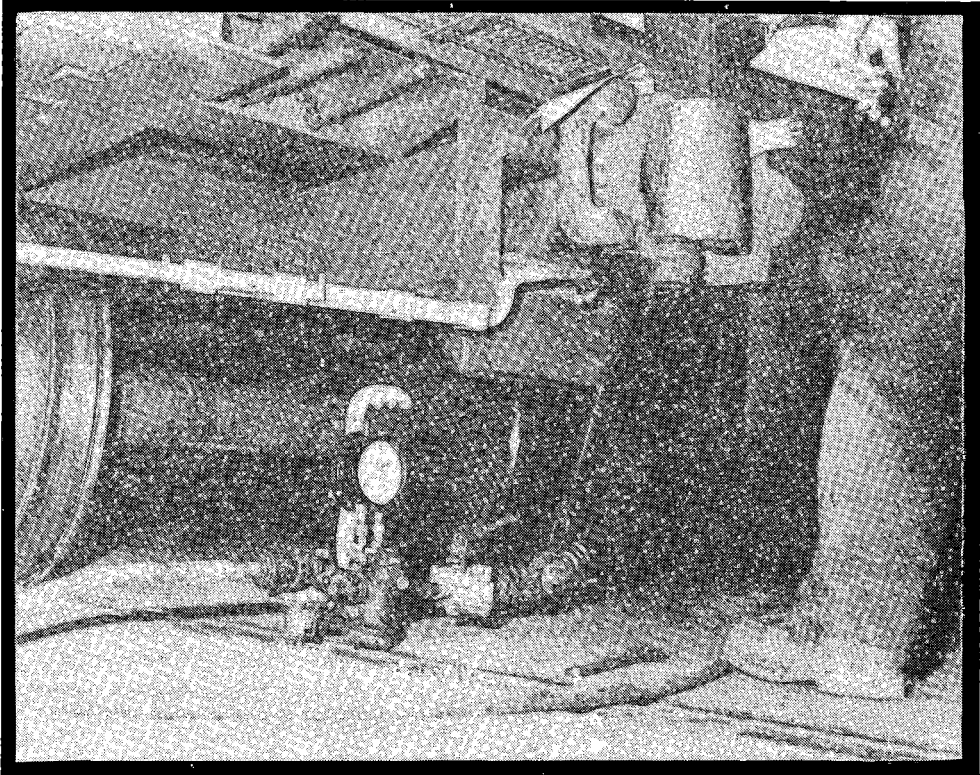
### **3.2.1 Static Brake Test**

A static brake test was conducted on each car in the test train to determine the static forces on the brake shoes at various brake cylinder pressures. This information was compared to accepted standards and used to correlate stop distance information to the designed braking ability of the car. This test was also used to ensure the compatibility between all car brake systems in the PKRG train.

The Static Brake Test was performed by AAR with assistance from Blaine Consulting Services on several of the cars. The brake test was performed to ensure compliance with existing AAR and FRA rules and regulations. The single car tests were performed on each car, following specifications from the Westinghouse Air Brake Company instruction pamphlet entitled, *Single Car Testing Device Code of Tests for Freight Equipment*, No. 5039-4 Sup. 1, Standard S-486, April 1987. This test was performed on both ends of the span bolster cars because there was an ABDW control valve located on each end -- one for each span bolster.

Next, the Net Shoe Force Test was performed. Instrumented brake shoe load cells were installed at each wheel/brake interface on the A-end of the car. Brake shoe forces were read from a digital readout for a series of different brake pipe reductions. The test was then repeated on the B-end of the car. Finally, a hand brake net shoe force was performed while the instrumented brake shoes were in the trucks. The hand brake was applied in 1,000-pound (horizontal chain force) increments and brake shoe forces were

measured and recorded. Figure 3.12 shows operation of the single car test device.



**Figure 3.12 Static Brake Test with Single Car Test Device**

### **3.2.2 Train Resistance on Tangent Track**

Coasting and train resistance testing was conducted on the Railroad Test Track (RTT) from station 39 to 34, the hunting test zone. Deceleration of the train was accomplished without brake application to determine the rolling resistance of the train. Testing was performed in overlapping speeds from 60 mph to 0 mph.

### **3.2.3 Acceleration on Tangent Track**

Acceleration testing was performed on the same section of track as all tangent braking tests and train resistance tests. Runs were performed from 20 mph to 30 mph, 30 mph to 40 mph, and 50 mph to 60 mph.

### **3.2.4 Braking on Tangent Track**

Several braking conditions were examined including full service and minimum service with and without locomotive dynamic brakes. All tests were stop distance type. Initial speeds up to 60 mph were tested. The following is a list of braking conditions.

- Minimum service air braking without dynamic braking
- Minimum service air braking with dynamic braking
- Full service air braking without dynamic braking
- Full service air braking with dynamic braking
- Emergency air braking

Dynamic braking is accomplished by using the locomotive traction motors in a reversed fashion to resist wheel rotation. Energy is dissipated as heat through dynamic brake grids.

The train air brake line operating pressure was 90 pounds per square inch (psi). Minimum service air braking was accomplished by reducing the train line pressure by 10 psi. Full service air braking was accomplished with a 25 psi reduction. Emergency air

braking was induced by venting the train line to the atmosphere. Dynamic braking was not used during emergency test runs. The following is a list of test speeds for each of the scenarios listed previously.

- 20 mph to 0 mph
- 30 mph to 0 mph
- 45 mph to 0 mph
- 60 mph to 0 mph

### **3.2.5 Train Resistance on Curved Track**

Two train resistance runs were performed from 40 mph to 0 mph on the Balloon Track. The test procedure was similar to the tangent train resistance procedure.

### **3.2.6 Braking on Curved Track**

Stop distance tests were performed on the Balloon Track and the 10-degree curve of the WRM Loop. The braking scenarios used in tangent braking tests were also used in curve testing. The test speeds were different, as shown below:

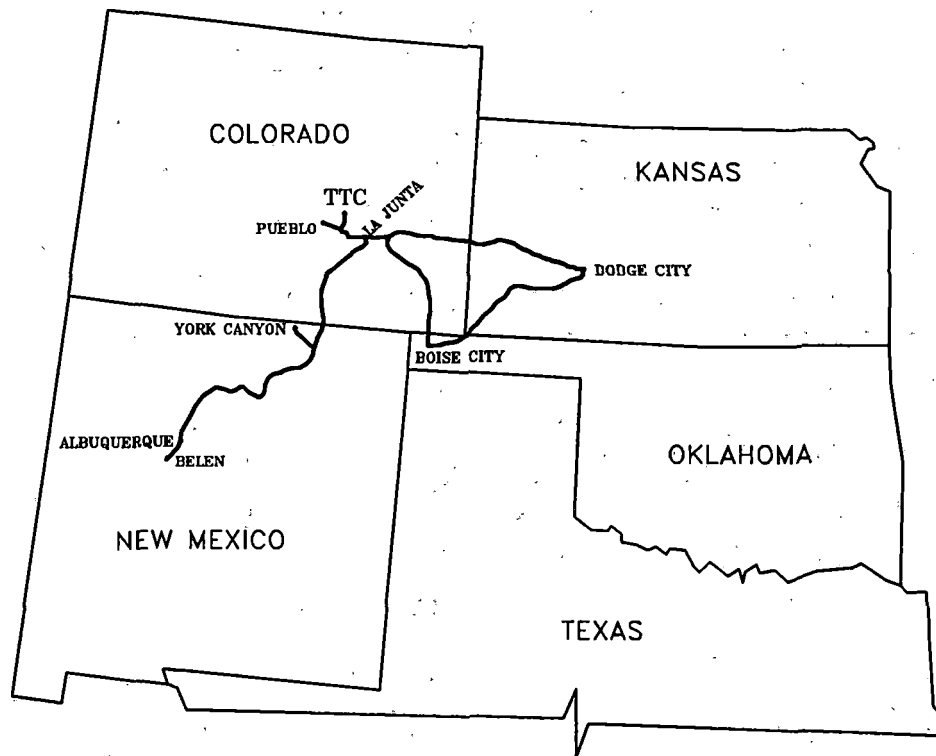
- 20 mph to 0 mph
- 30 mph to 0 mph
- 45 mph to 0 mph

### **3.2.7 Holding on a Grade**

A test was performed to determine the ability of the locomotive independent air brakes to hold the train on a 2 percent grade. The test was performed in the 5-degree curve on the WRM Track.

### 3.3 TRAIN MOBILITY EVALUATION

The Train Mobility Test started at TTC and traversed over AT&SF rail lines between Dodge City, Kansas, and Albuquerque, New Mexico. Testing was intended to evaluate various parameters of train operation and operating environment. Figure 3.13 is a map of the test route. Appendix A contains a more detailed map with station names.



**Figure 3.13 Train Mobility Test Route**

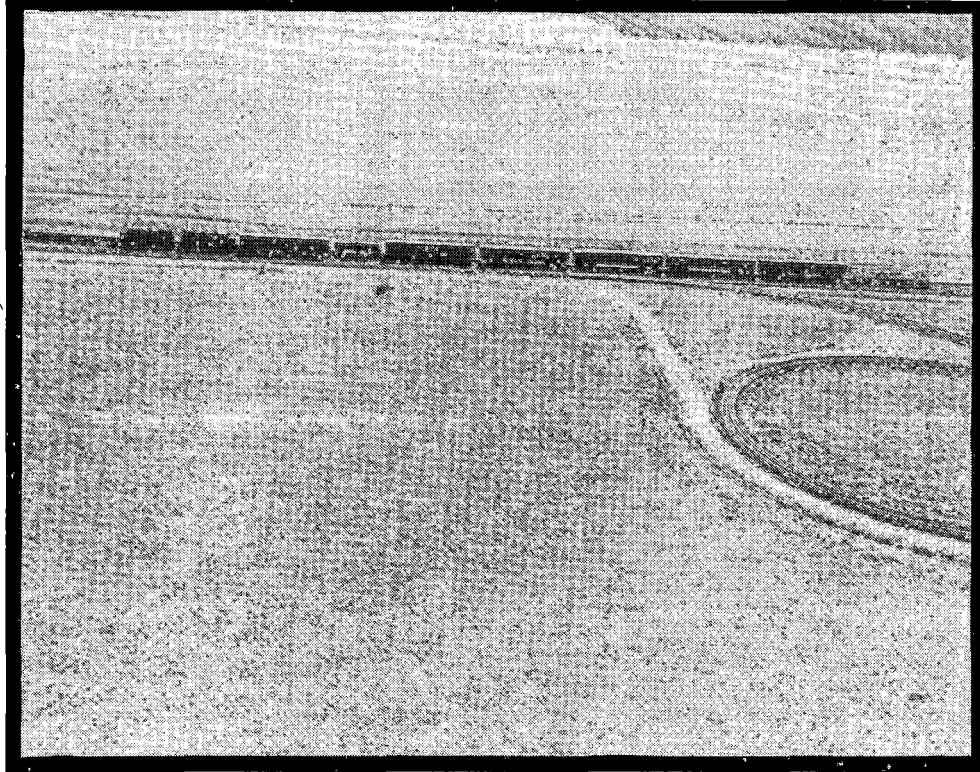
Tests were divided into 14 conditions. Each condition was denoted by a letter at the front of the run number for each test. The various conditions and their single letter codes are shown in Table 3.2

**Table 3.2 Train Mobility Test Conditions**

CODE	TEST CONDITION
A	Stopping on Ascending Grades
B	Air Brake Test
C	Horizontal Curves
D	Stopping on Descending Grades
E	Superelevation
G	Operating up Grades
H	Hand Brakes
K	Class of Track
P	Starting on Ascending Grades
R	Starting on Descending Grades
S	Maximum Speed
T	Switches
V	Vertical Curves
W	Weight of Rail

The tests were designed by Boeing and intended to satisfy the USAF Weapons System Specification (WSS). Many of the test conditions were performed at various operating speeds and in forward and reverse direction. The test train was the same as in the train handling testing with the MLC, EM-1 replacing the depressed center flatcar. The test train is leaving TTC toward the AT&SF network in Figure 3.14.





**Figure 3.14 Test Train Heading for AT&SF Network**

AAR was required to acquire locomotive performance data and car roll angles. The locomotive data was analyzed by AAR, but the roll data was immediately turned over to Boeing after each test.

### 3.3.1 Stopping on Ascending Grades

Stop tests were performed on grades of up to 2.6 percent. The various conditions are presented in Table 3.3.

**Table 3.3 Test Description for Stopping on Ascending Grades**

CODE	GRADE (%)	DIRECTION
A1F	0.0 - 0.8	Forward
A2F	0.9 - 1.7	Forward
A3F	1.8 - 2.6	Forward
A1R	0.0 - 0.8	Reverse
A2R	0.9 - 1.7	Reverse
A3R	1.8 - 2.6	Reverse

The steepest grade tested on the route was 2.0 percent. For grades steeper than 2.0 percent, at Raton and Glorietta Pass, an additional locomotive and extra empty cars were added to the train for power and braking assistance.

### 3.3.2 Air Brake Tests

Air brake tests were performed at TTC before leaving for the ATSF network. These tests were performed to verify proper brake system operation. The various conditions are presented in Table 3.4.

**Table 3.4 Description for Air Brake Tests**

CODE	DESCRIPTION
B1S	System Charging Time
B2S	System Leakage Rate
B3S	Service Application Performance
B4S	Service Release Performance
B5S	Emergency Application Performance
B6S	Emergency Release Performance
B7S	Retaining Valve Performance
B8S	Service Application Recharging Time

### 3.3.3 Horizontal Curves

Curve negotiation tests were performed over 1- to 10-degree curves. The various conditions are presented in Table 3.5.

**Table 3.5 Test Description for Horizontal Curving**

CODE	DEGREE OF CURVE	DIRECTION
C1F	1 to 4	Forward
C2F	5 to 9	Forward
C3F	10 to 14	Forward
C1R	1 to 4	Reverse
C2R	5 to 9	Reverse
C3R	10 to 14	Reverse

### 3.3.4 Stopping on Descending Grades

Stop tests were performed while ascending grades of up to 2.6 percent. The various conditions are presented in Table 3.6.

**Table 3.6 Test Description for Stopping on Descending Grades**

CODE	DIRECTION	GRADE (%)	CONDITION
D1F	Forward	0.0 - 0.8	Train Line Air Brakes
D2F	Forward	0.0 - 0.8	Predominantly Dynamics
D3F	Forward	0.0 - 0.8	Emergency
D4F	Forward	0.9 - 1.7	Train Line Air Brakes
D5F	Forward	0.9 - 1.7	Predominantly Dynamics
D6F	Forward	0.9 - 1.7	Emergency
D7F	Forward	1.8 - 2.6	Train Line Air Brakes
D8F	Forward	1.8 - 2.6	Predominantly Dynamics
D9F	Forward	1.8 - 2.6	Emergency
D10F	Forward	1.8 - 2.6	Train Line Air Brakes
D11F			Combined with Dynamics
D12F	Forward	1.8 - 2.6	Emergency
D1R	Reverse	0.0 - 0.8	Train Line Air Brakes
D3R	Reverse	0.0 - 0.8	Emergency
D4R	Reverse	0.9 - 1.7	Train Line Air Brakes
D6R	Reverse	0.9 - 1.7	Emergency
D7R	Reverse	1.8 - 2.6	Train Line Air Brakes
D9R	Reverse	1.8 - 2.6	Emergency
D10R	Reverse	1.8 - 2.6	Train Line Air Brakes
D12R	Reverse	1.8 - 2.6	Emergency

The steepest grade tested on the route was 2.0 percent. For grades steeper than 2.0 percent, at Raton and Glorietta Pass, an additional locomotive and several empty cars were added to the train for braking assistance.

### 3.3.5 Superelevation

The curves on the route had various superelevations. The conditions are presented in Table 3.7.

**Table 3.7 Test Description for Superelevation**

CODE	SUPERELEVATION (in.)	DIRECTION
E1F	0.0 to 1.0	Forward
E2F	1.1 to 2.0	Forward
E3F	2.1 to 3.0	Forward
E4F	3.1 to 4.0	Forward
E5F	4.1 to 5.0	Forward
E6F	5.1 to 6.0	Forward
E1R	0.0 to 1.0	Reverse
E2R	1.1 to 2.0	Reverse
E3R	2.1 to 3.0	Reverse
E4R	3.1 to 4.0	Reverse
E5R	4.1 to 5.0	Reverse
E6R	5.1 to 6.0	Reverse

### 3.3.6 Ascending Grades

Tests were performed while ascending grades of up to 2.6 percent. The various conditions are presented in Table 3.8.

**Table 3.8 Test Description for Ascending Grades**

CODE	GRADE (%)	CONDITION
G1F	0.0 - 0.8	Forward
G2F	0.9 - 1.7	Forward
G3F	1.8 - 2.6	Forward
G1R	0.0 - 0.8	Reverse
G2R	0.9 - 1.7	Reverse
G3R	1.8 - 2.6	Reverse

The steepest grade tested on the route was 2.0 percent. For grades steeper than 2.0 percent, Raton and Glorietta Pass, an additional locomotive and empty cars were added to the train for braking assistance. The empty cars were intended to add train resistance on the 2.0 percent grade to simulate ascending a 2.6 percent grade.

### 3.3.7 Hand Brakes

The ability of the hand brakes on all cars to hold the train stationary on grades of up to 3.0 percent was the subject of this test. Table 3.9 lists the grades tested.

**Table 3.9 Hand Brake Test Conditions**

CODE	GRADE (%)
HS1	Level Track
HS2	0.0 - 0.8
HS3	0.9 - 1.7
HS4	1.8 - 2.6
HS5	3.0



### 3.3.8 Class of Track

The train was required to operate over FRA Class 3, 4, and 5 track. Sections of track with varying class were chosen throughout the route. Table 3.10 describes the test conditions.

**Table 3.10 Track Class Test Conditions**

CODE	FRA TRACK CLASS	DIRECTION	SPEED (mph)
K1F	3	Forward	40
K2F	3	Forward	30
K3F	3	Forward	20
K4F	4	Forward	60
K5F	4	Forward	45
K6F	4	Forward	30
K7F	5	Forward	60
K8F	5	Forward	45
K9F	5	Forward	30
K3R	3	Reverse	N/A
K4R	4	Reverse	N/A
K5R	5	Reverse	N/A

### 3.3.9 Starting on Ascending Grades

Tests were performed to determine the ability of the train to start on ascending grades of up to 2.6 percent. The various conditions are presented in Table 3.11.

**Table 3.11 Test Description for Starting on Ascending Grades**

CODE	GRADE (%)	CONDITION
P1F	0.0 - 0.8	Forward
P2F	0.9 - 1.7	Forward
P3F	1.8 - 2.6	Forward
P1R	0.0 - 0.8	Reverse
P2R	0.9 - 1.7	Reverse
P3R	1.8 - 2.6	Reverse

The steepest grade tested on the route was 2.0 percent. For grades steeper than 2.0 percent, Raton and Glorietta Pass, an additional locomotive was added for extra power on the ascent.

### 3.3.10 Starting on Descending Grades

Tests were performed to determine the ability of the train to start on descending grades of up to 2.6 percent. The various conditions are presented in Table 3.12.

**Table 3.12 Test Description for Starting on Descending Grades**

CODE	GRADE (%)	CONDITION
R1F	0.0 - 0.8	Forward
R2F	0.9 - 1.7	Forward
R3F	1.8 - 2.6	Forward
R1R	0.0 - 0.8	Reverse
R2R	0.9 - 1.7	Reverse
R3R	1.8 - 2.6	Reverse

The steepest grade tested on the route was 2.0 percent. For grades steeper than 2.0 percent, Raton and Glorietta Pass, an additional locomotive and extra cars were added for braking on the descent.

### 3.3.11 Missile Integration

Missile integration testing was designed to determine the vibration environment for the missile and canister while traversing FRA Class 3, 4, and 5 track at different speeds.

Table 3.13 lists the various test conditions.

**Table 3.13 Missile Integration Test Conditions**

CODE	FRA TRACK CLASS	SPEED (mph)
S1F	3	10
S2F	3	30
S3F	3	40
S4F	4	10
S5F	4	30
S6F	4	50
S7F	5	10
S8F	5	30
S9F	5	50

Each test zone was 1 mile long. The same test zone was used for all three speeds at each class.

### 3.3.12 Switches

It was necessary to negotiate different types of turnouts on the route in forward and reverse directions. Table 3.14 lists the various test conditions.

**Table 3.14 Turnout Test Conditions**

CODE	TURNOUT NUMBER	DIRECTION
T1F	16 - 20	Forward
T2F	10 - 15	Forward
T3F	8 - 9	Forward
T4F	7	Forward
T1R	16 - 20	Reverse
T2R	10 - 15	Reverse
T3R	8 - 9	Reverse
T4R	7	Reverse

### 3.3.13 Weight of Rail

It was necessary to negotiate different weights of rail on the route in forward and reverse directions. Table 3.15 lists the various test conditions.

**Table 3.15 Weight of Rail Test Conditions**

CODE	RAIL WEIGHT (lbs/yard)	DIRECTION
W1F	132 - 136	Forward
W2F	112 - 119	Forward
W3F	100	Forward
W4F	90	Forward
W1R	132 - 136	Reverse
W2R	112 - 119	Reverse
W3R	100	Reverse
W4R	90	Reverse

## 4.0 TEST VEHICLES

### 4.1 LOCOMOTIVE DESCRIPTION

Two remanufactured GP40-2 four axle locomotives (Figure 4.1) were supplied by Boeing (TBCX-4000 & TBCX-4901). They were later to be upgraded as operational models for the PKRG train. Other locomotives were used for logistic moves at TTC, as required.

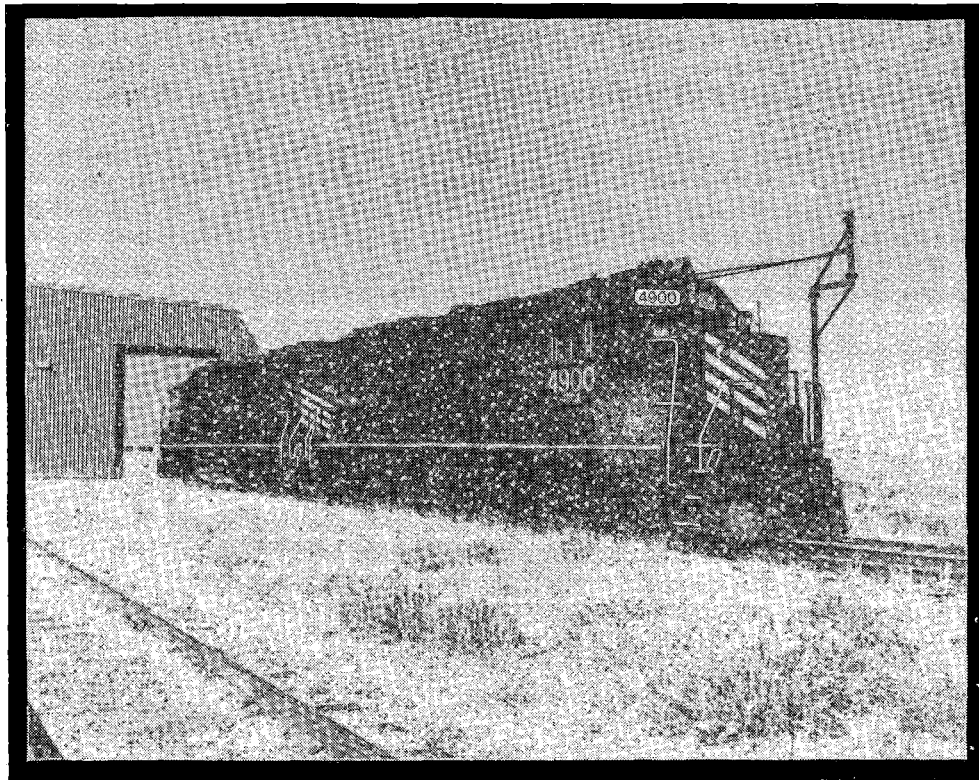
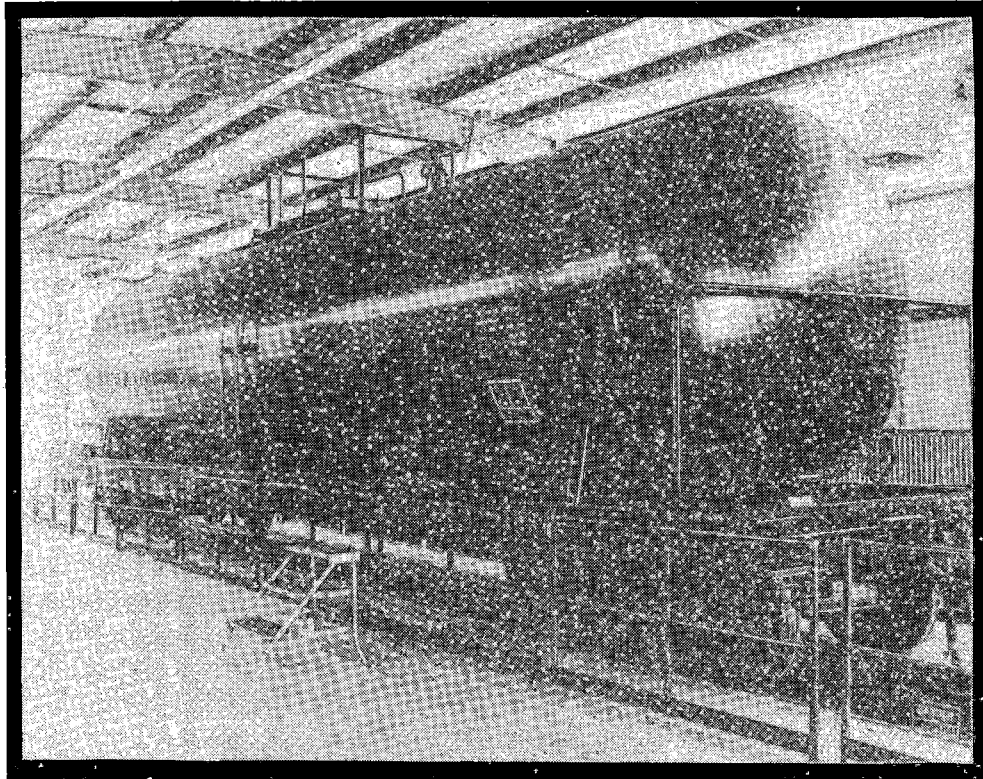


Figure 4.1 PKRG Locomotives

## **4.2 FUEL CAR DESCRIPTION**

One test vehicle was Boeing's Fuel Car (TBCX-90001). Figure 4.2 shows the Fuel Car from the A-end. The Fuel Car was a 74,100 pound (unloaded) conventional tank car. The car, which used two conventional three-piece 100-ton trucks, has a 21,644 gallon, 5/8-inch thick outer shell tank that was to be used to carry fuel for the PKRG train. The car was an existing design, made by Procor and procured for the USAF by Boeing. The 36-inch wheels arrived with AAR 1:20 profiles. All wheels were then cut to the new industry standard AAR-1B profile. The axle spacing, within the truck, was 70 inches. The truck center spacing was 35 feet 5 inches and the car length was 46 feet 4 inches over strikers.

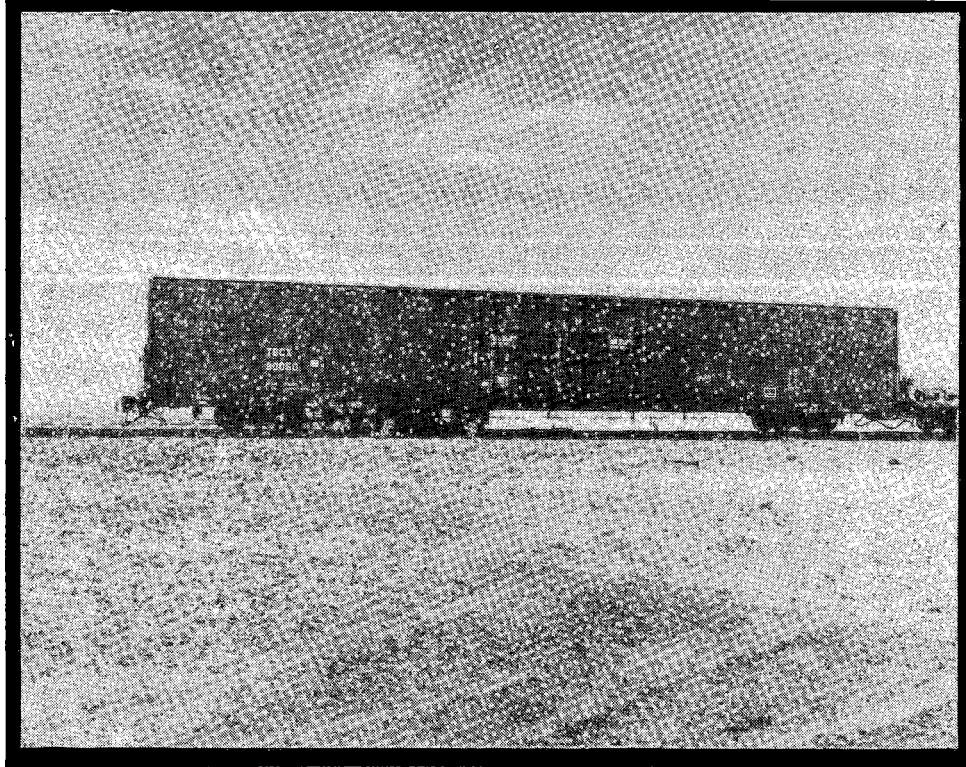


**Figure 4.2 Fuel Car from A-End**



### **4.3 MAINTENANCE CAR DESCRIPTION**

Figure 4.3 shows the PKRG Engineering Model of the Maintenance Car numbered TBCX-90050.



**Figure 4.3 Maintenance Car Side View**

The car was built for Boeing by ITEL under contract to the USAF. The maintenance equipment and spare parts were simulated with concrete blocks bolted in a steel frame. The mass and center of gravity of the EM car were said to be the same as the Operational Model (OM). The loaded weight of the car was 205,300 pounds. The axle spacing within each conventional three-piece 100-ton design truck was 70 inches. The truck center spacing was 64 feet. The car body was 87 feet 1 inch long. The car length was 89 feet over strikers. Type H tight lock couplers and 901-E draft gear were used.

#### **4.4 TEST INSTRUMENTATION CAR (TIC) DESCRIPTION**

The Security Car (EMS-2), was supplied by Rockwell International (DAFX-0003). The car was designed by Rockwell and built by the St. Louis Refrigerated Car Company. The Security Car was also called the Test Instrumentation Car (TIC) in these tests.

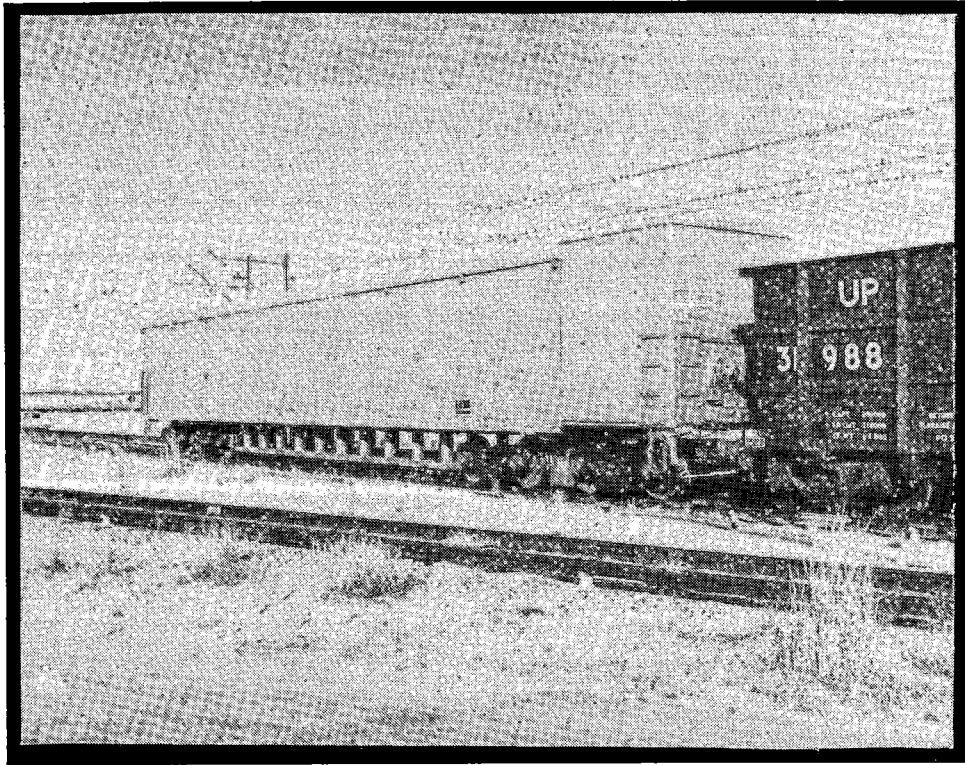
The loaded weight of the TIC was 411,200 pounds. The interior of the TIC was designed to carry the Train Instrumentation System (TIS) and personnel to operate this system. The TIC also housed the gyro system. The car rode on two Buckeye span bolsters. Each span bolster rode on two standard three-piece trucks with conventional 100-ton roller side bearings.

The trucks were ASF Ride Control 100-ton conventional three-piece trucks. Each truck was equipped with eight D-7 outer springs, seven D-7 inner springs, and a Stucki HS-7 hydraulic snubber across each spring group. The trucks then rode on two 36-inch wheel sets with AAR-1B wheel profiles.

#### **4.5 MISSILE LAUNCH CAR DESCRIPTIONS**

Two test vehicles were the PKRG Missile Launch Cars, Engineering Mass Simulator Car WECX-1003R (Figure 4.4) and Engineering Model Car WECX-1001R.

The cars were designed for the USAF by WEC to carry a Peacekeeper canisterized missile and associated launch hardware. For this test series, the missile and canister were simulated with concrete blocks in a steel truss in the mass simulator car and a concrete slug in a steel canister in the EM car.



**Figure 4.4 Missile Launch Car, EMS-1 from B-end**

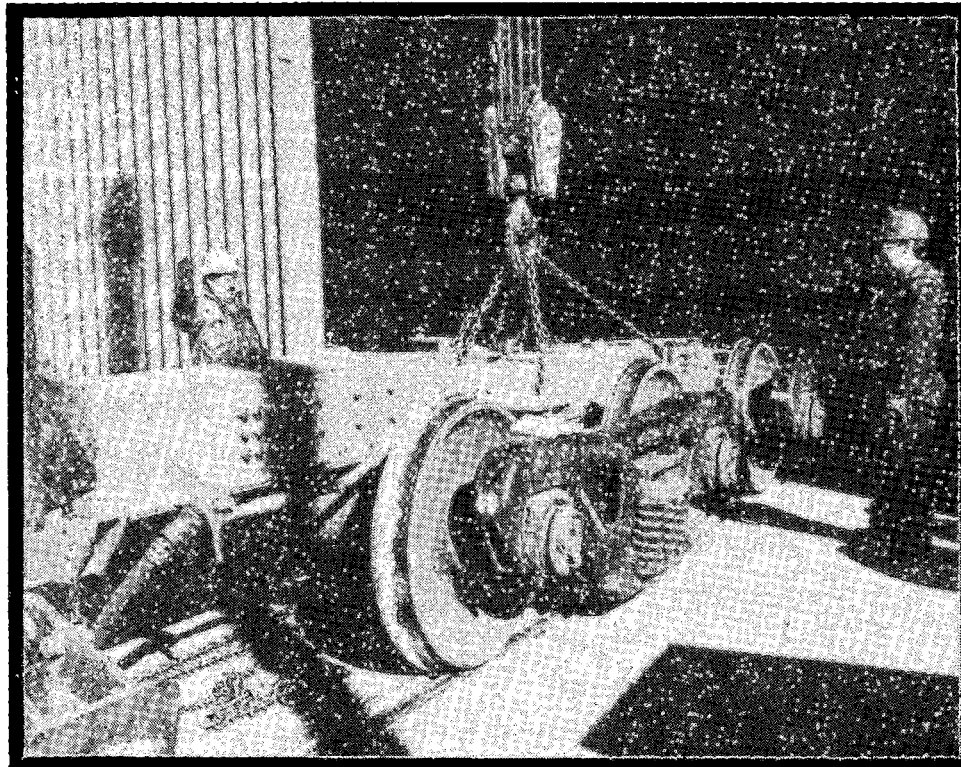
The car was not longitudinally symmetrical. An operational support equipment (OSE) bay simulator was bolted to the B-end of the car. That bay would hold the launch hardware and the environmental control system. Those items were simulated with steel plates on the outside walls of the OSE bay. While the mass and center of gravity of the EMS-1 car may have been similar to an OM, the polar moments of inertia were not necessarily the same.

The vertical "legs" attached to the underside of the car were launch stabilization reactor (LSR) simulators. The LSR's on the OM car were extended to contact the rail before launch. This would distribute the launch load uniformly into 42 feet of track. The EMS-1 simulators were not functional.

The engineering model Missile Launch Car was not available for 7.3.1a testing at TTC. A commercially available flatcar ballasted to represent the Missile Launch Car weight was substituted. This flatcar is described later in Section 4.8.

WEC estimated the weight of the loaded MLC at 554,000 pounds. The loaded weight of the test car was 552,000 pounds as weighed on the Mini-Shaker Unit (MSU). The empty weight of the test car was 209,100 pounds according to WEC. Span bolsters were required to distribute this load over four trucks, two at each end. The special span bolsters were designed by and constructed for WEC. The B-end span bolster is shown in Figure 4.5 as it was being removed for air bearing tests.

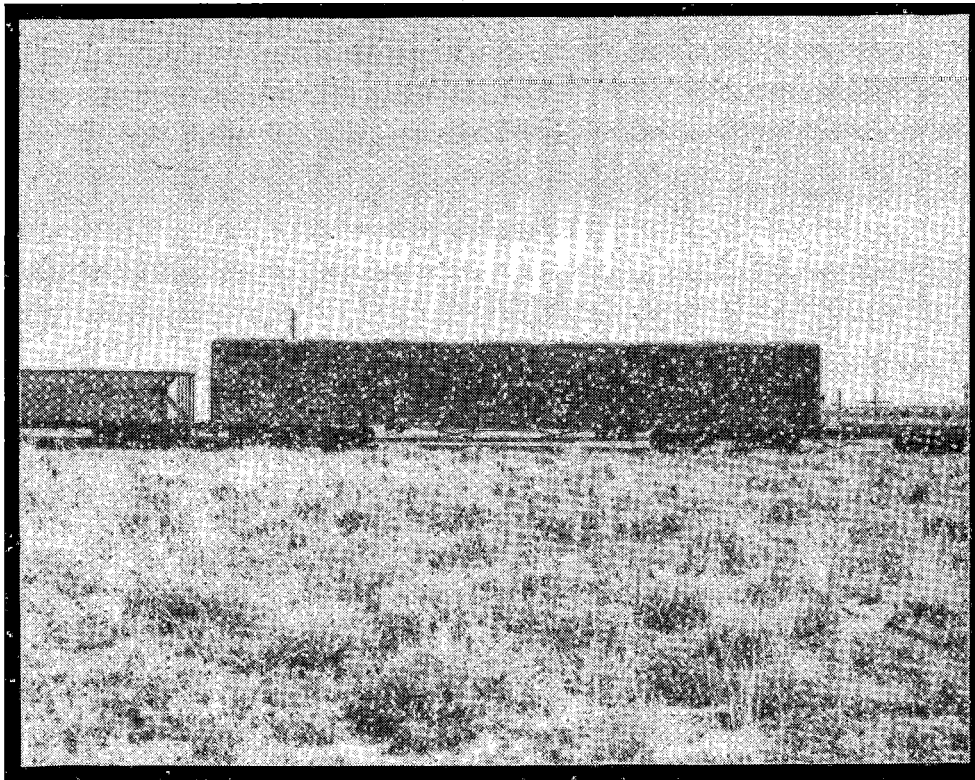
The axle spacing within each conventional three-piece 125-ton capacity truck was 72 inches. The truck center spacing within a span bolster was 144 inches. The span bolster center spacing was 62 feet. The car body was 87 feet 1 inch long. The car length was 89 feet over strikers. Type H tight lock couplers and 901-E draft gear were used.



**Figure 4.5 Missile Launch Car B-end Span Bolster**

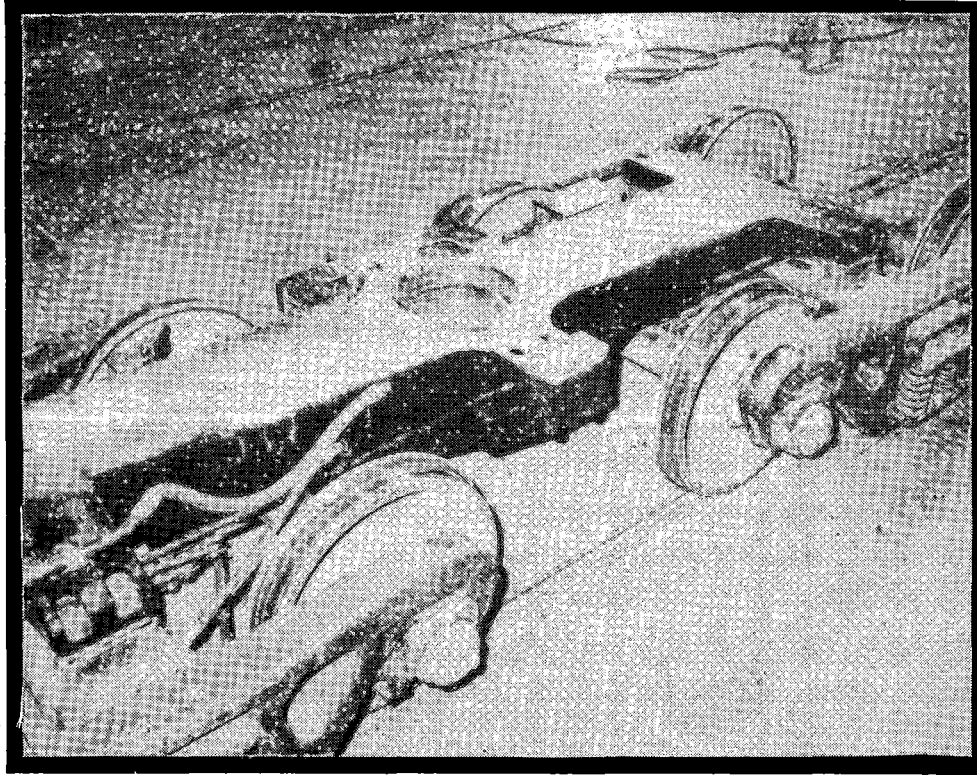
#### **4.6 LAUNCH CONTROL CAR DESCRIPTION**

One Launch Control Car (EMS-2), was supplied by Rockwell International (DAFX-0001). The car was designed by Rockwell and built by the St. Louis Refrigerated Car Company. Figure 4.6 shows the LCC, which is 90 feet long over strikers.



**Figure 4.6 Launch Control Car**

The loaded weight of the LCC was 392,400 pounds. The interior of the LCC was loaded with steel and sand bags to simulate the operational LCC weight and center of gravity. The car rode on two Buckeye span bolsters. Each span bolster rode on two conventional three-piece 100-ton trucks with standard roller side bearings. Figure 4.7 shows one of the span bolster with two trucks.



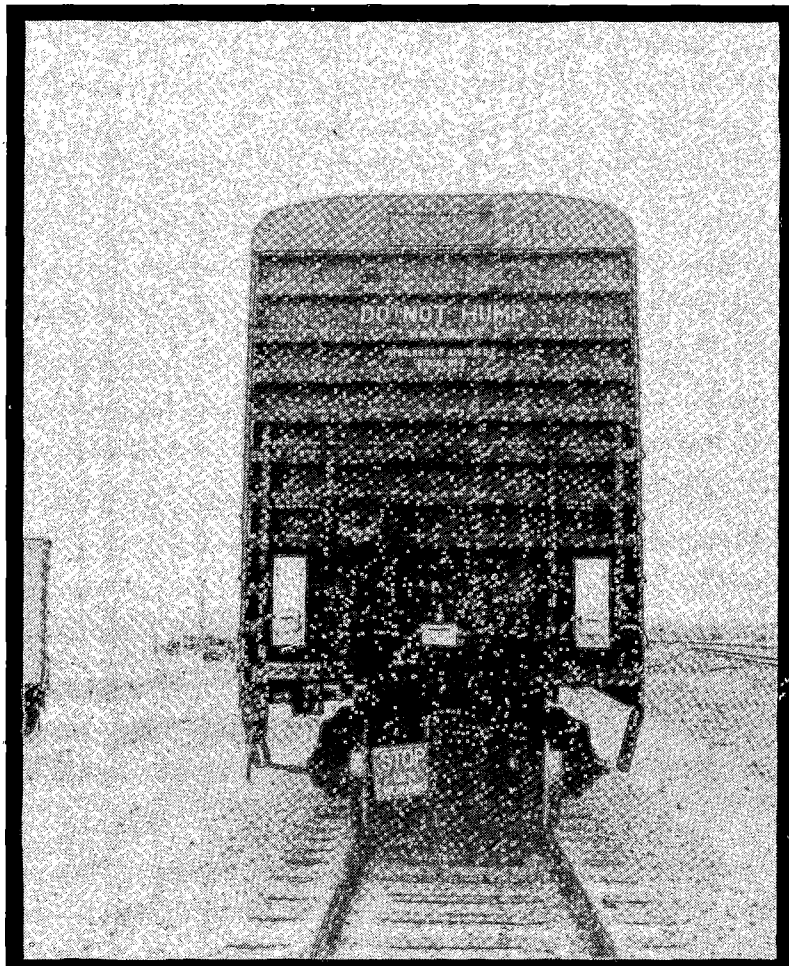
**Figure 4.7 LCC Span Bolster and Trucks**

The trucks were ASF Ride Control 100-ton conventional three-piece trucks. Each truck was equipped with eight D-7 outer springs, seven D-7 inner springs, and a Stucki HS-7 hydraulic snubber across each spring group. The trucks then rode on two 36-inch wheel sets with AAR-1B wheel profiles.



#### **4.7 SECURITY EMS-1 CAR DESCRIPTION**

The second Security Car (EMS-1), was similar to the TIC, but was mass simulated (DAFX-0004). There were no passenger accommodations. The car weighed 410,550 pounds. It was equipped with span bolsters. Figure 4.8 shows the Security Car from the B-end.

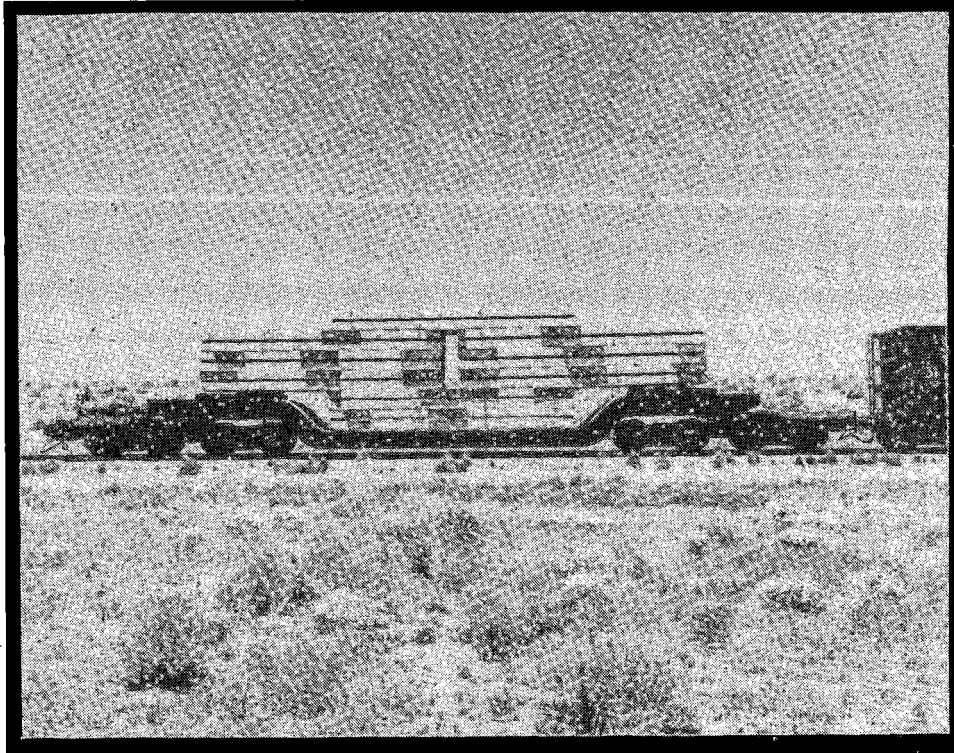


**Figure 4.8 Security Car from the B-end**



#### **4.8 DEPRESSED CENTER FLATCAR DESCRIPTION**

The ATSF 90004 depressed center flatcar, with 38-inch wheel sets is shown below in the loaded condition (Figure 4.9).



**Figure 4.9 ATSF 90004 (Loaded Condition)**

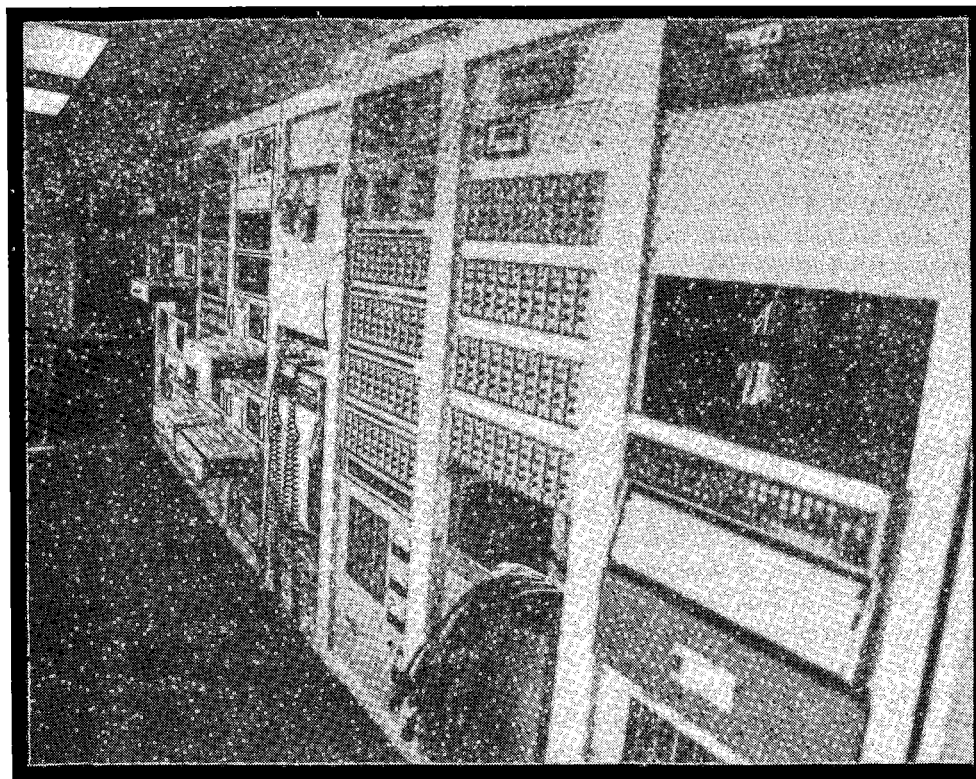
The ATSF 90004 depressed center flatcar was chosen for its ability to be loaded to simulate weight and vertical center of gravity of the Missile Launch Car. The overall length was 5 feet 6 inches shorter than the Missile Launch Car. The width was approximately the same.

The ATSF 90004 car was loaded with eighteen 22,000 pound concrete blocks for a total car weight of 556,900 pounds. The vertical center of gravity for the car and load was 87.1 inches. The mass moment of inertia in the X direction was approximately  $2.9 \times 10^6$  in-lbs-sec<sup>2</sup>, and in the Y direction  $5.3 \times 10^7$  in-lbs-sec<sup>2</sup>. ATSF 90004 was designed with a span bolster to distribute heavy loads over four 125-ton trucks, two at each end. Contact between the car and the span bolster was maintained at one location. The center plate was 22 inches in diameter and used a center pin. Solid plate side bearings were used between the car body and span bolster. Single roller bearings were used between the span bolster and trucks. There was no primary suspension present. The secondary suspension system consisted of eight outer and eight inner D-3 springs.

The 38-inch wheels were used in the condition they arrived. No additional profiling was performed. The axle spacing within each conventional three-piece 125-ton capacity truck was 72 inches. The truck center spacing within a span bolster was 144 inches. The span bolster center spacing was 55 feet. The car body was 62 feet long with a 25-foot depressed center. The car length was 86 feet 4 inches over pulling face of couplers. Type E-60 tight lock couplers with a 15-inch Freightmaster M-E cushioning device were used.

#### **4.9 AAR INSTRUMENTATION CAR (T-5) DESCRIPTION**

The data collection car used for PKRG testing was the DOTX-205 (T-5) Instrumentation Car. The car was modified to allow installation of the instrumentation and computer equipment required for testing with instrumented wheel sets. Figure 4.10 shows the inside of the T-5 equipped with instrumented wheel set processors and signal conditioners.



**Figure 4.10 T-5 Car Interior**

#### **4.10 TEST TRAIN CONFIGURATION**

Figure 4.11 shows the standard test train configuration for the on-track testing. The train contained, in order, two locomotives, the Maintenance Car, the Fuel Car, the TIC Car, the Flatcar, the Launch Control Car, the Missile Launch Car EMS-1, and the Security Car. The T-5 Car was at the rear of the train for train handling tests and behind the Fuel Car for track worthiness testing. The flatcar was replaced by the Missile Launch Car EM-1, for the train mobility evaluation.



**Figure 4.11 Standard Test Train Configuration**

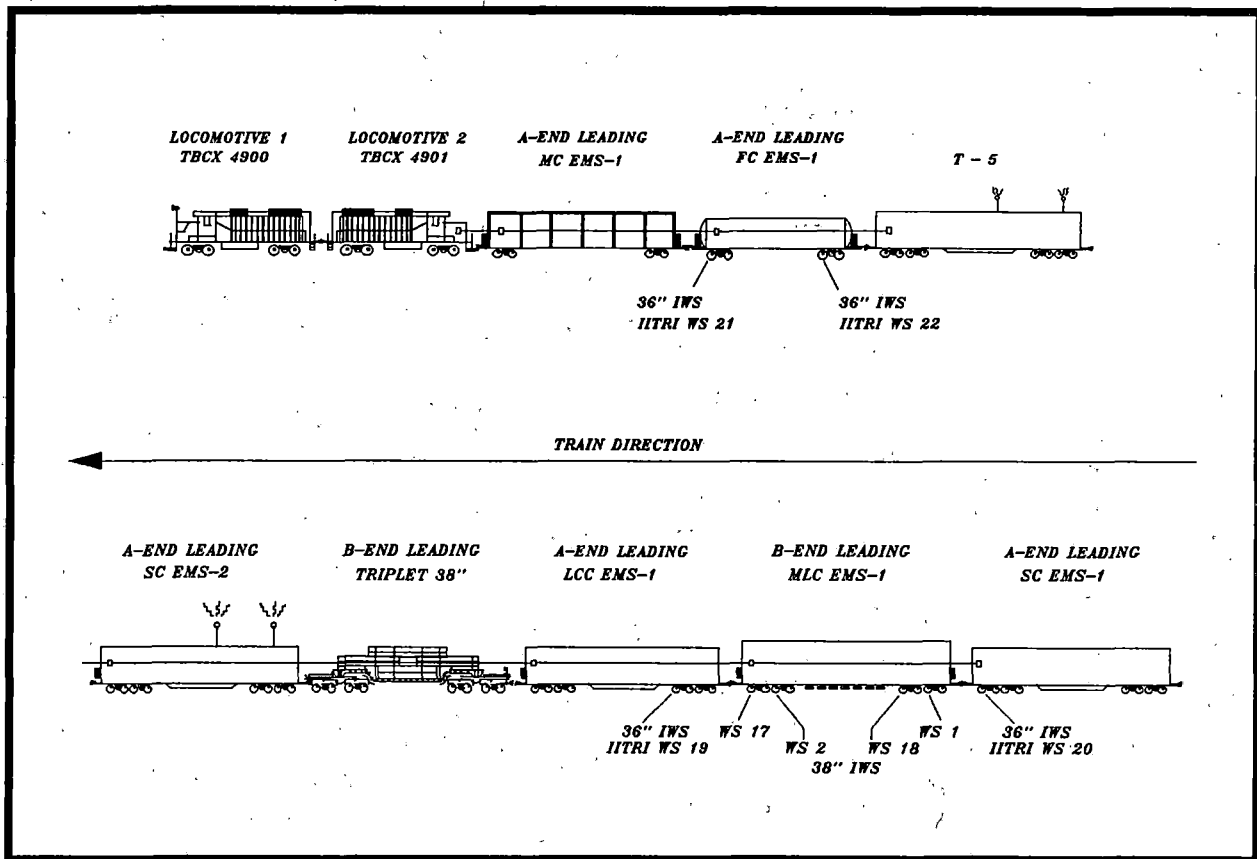
## **5.0 INSTRUMENTATION**

The train was fitted with instrumented wheel sets, accelerometers, roll gyros, and string pots for 7.3.1a testing. AAR was required to collect and analyze instrumented wheel set data. The roll gyro system was provided by AAR but the data was collected by Rockwell International. The roll gyro strip charts were turned over to Boeing for analysis. AAR also provided an on-train communication system and a video system. During testing at TTC, wayside measurements were also acquired. The following sections describe each part of the instrumentation package.

The same instrumentation was used for 7.3.1b testing except that instrumented wheel sets were not installed. One span bolster on the Missile Launch Car, EM-1 was also instrumented with strain gages that were collected by the AAR in the T-5 Car.

### **5.1 INSTRUMENTED WHEEL SET SYSTEM**

Four 38-inch instrumented wheel sets were provided to TTC for this test as Government Furnished Equipment (GFE). Two sets were manufactured by the Illinois Institute of Technology Research Institute (IITRI), and two sets were manufactured by ENSCO Inc. Four 36-inch instrumented wheel sets were procured by AAR for the PKRG program. They were also manufactured by IITRI. The instrumented wheel sets use standard wheels and axles machined smooth and strain gaged. Vertical and lateral wheel force, and axle torque were calculated from the strain gage output. Figure 5.1 shows the location of each instrumented wheel set for 7.3.1a track worthiness testing. Appendix B contains the instrumented wheel set measurement list.

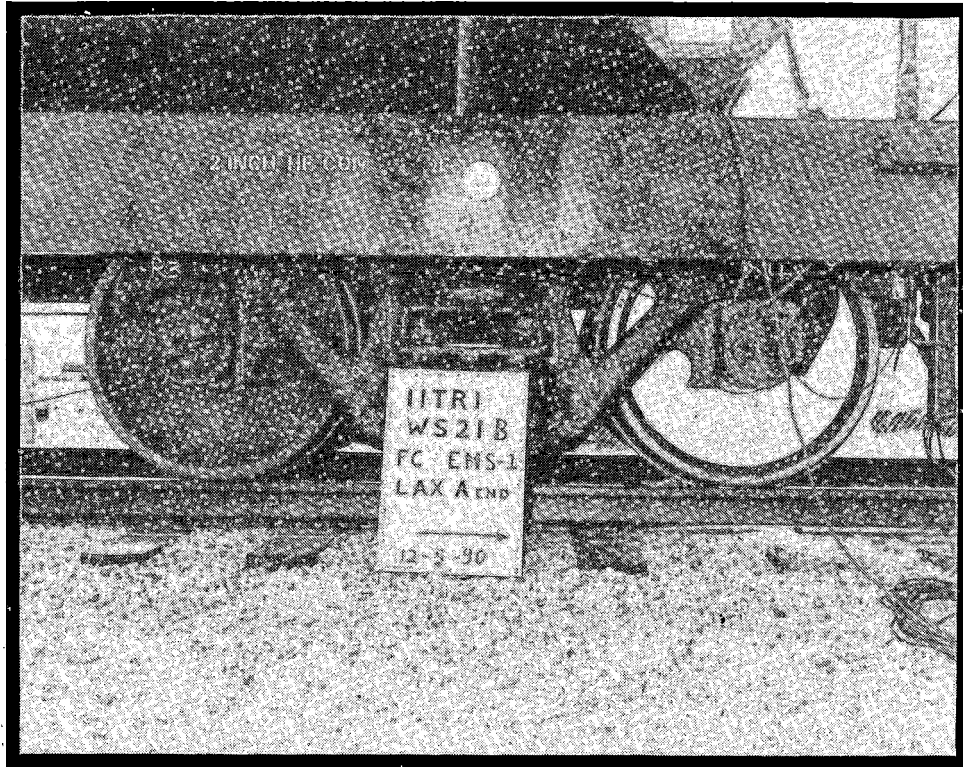


**Figure 5.1 Instrumented Wheel Set Locations**

### 5.1.1 IITRI Wheel Sets

Each wheel used six strain gage bridges. Three strain gage bridges were used to measure vertical force; two were used to measure lateral force and one was used to indicate lateral wheel tread position on the rail. Axle torque was measured with a strain gage bridge on the axle. The raw analog strain gage signals were acquired with a 386 based computer system and an analog to digital (AD) converter. The signals were processed to produce digital output in the form of left and right side vertical wheel force, lateral wheel force, and axle torque. The digital signals were then converted to analog. Those analog

signals were displayed on strip charts and acquired on the HP Data Acquisition System (DAS) with the output from other transducers. Figure 5.2 shows an IITRI wheel set installed under the Fuel Car.

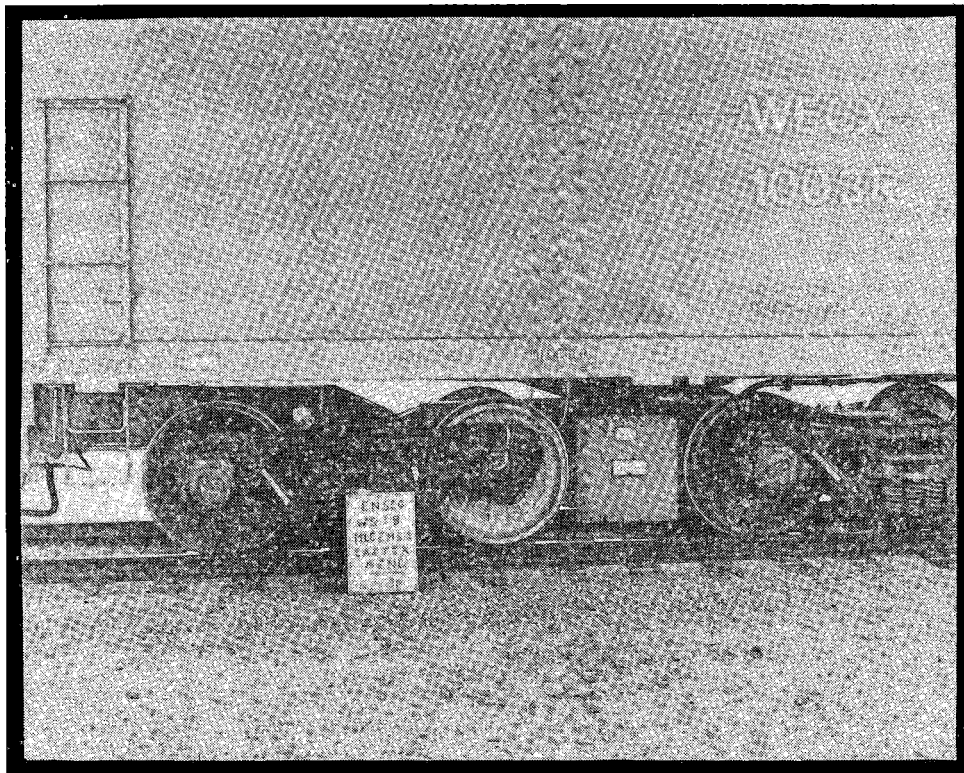


**Figure 5.2 IITRI Instrumented Wheel Set**



### 5.1.2 ENSCO Wheel Sets

The ENSCO wheel sets were similar in design to IITRI. One major difference was the wheel rotational position sensor. Rotational position on the IITRI wheels is implied from vertical gage output. The ENSCO sets used magnetic switches between the axle and bearing adapter to monitor wheel rotation. ENSCO used two vertical gage bridges and two lateral gage bridges, but no lateral position gage. ENSCO used a bridge on the axle to measure torque. Signal processing was similar to IITRI; however, ENSCO used a 286 based computer. Figure 5.3 shows the ENSCO wheel set installed under the Missile Launch Car.



**Figure 5.3 ENSCO Instrumented Wheel Set**



## 5.2 ROLL GYRO SYSTEM

Chapter XI requires the measurement of car body roll angle. This was accomplished with two roll rate gyros. The gyros were installed on each end of the car at floor level, as shown in Figure 5.4.

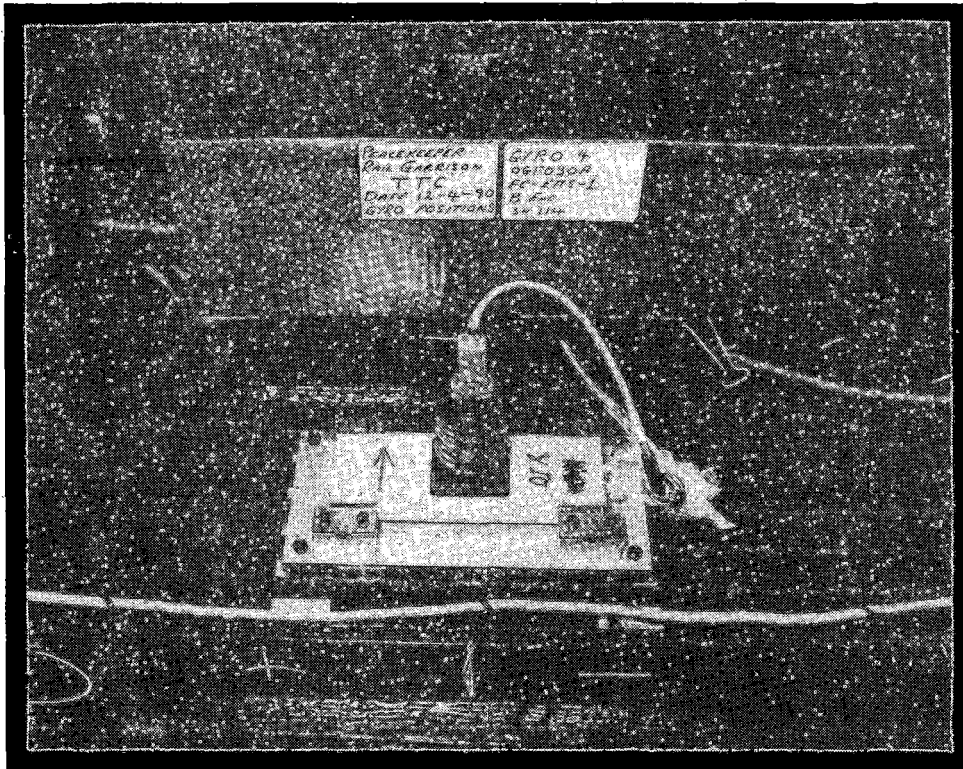
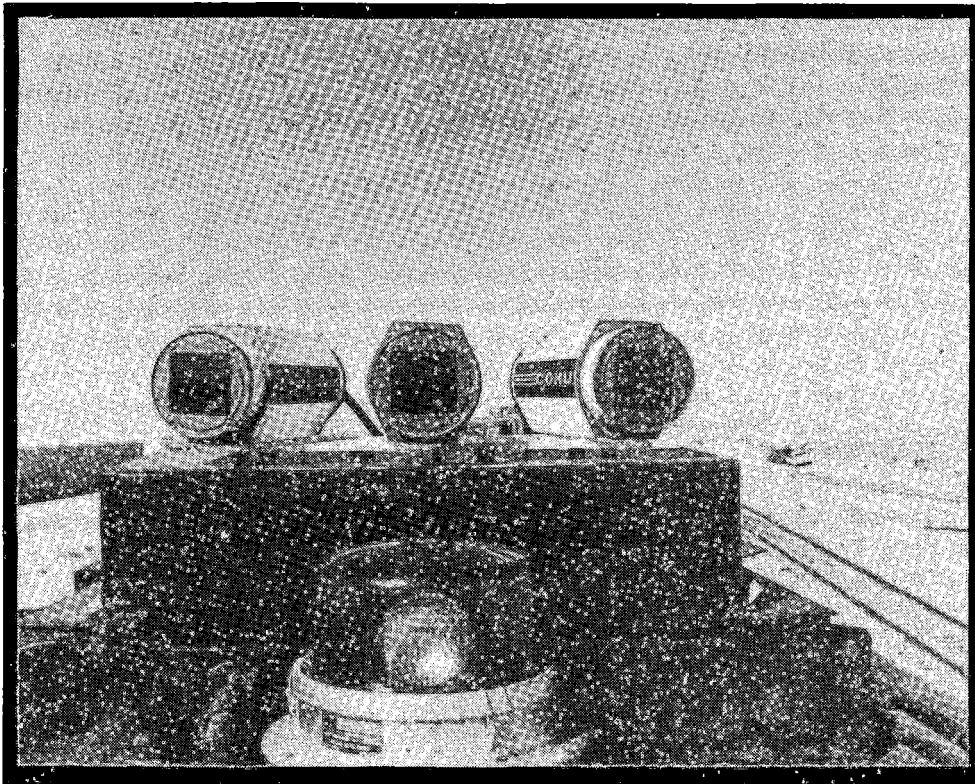


Figure 5.4. Roll Gyro at End of Fuel Car

The output signal was a roll rate. This was electronically integrated and output to the strip chart and the Rockwell TIS as an analog roll angle. Appendix C contains the roll gyro measurement list.

### **5.3 VIDEO SYSTEM**

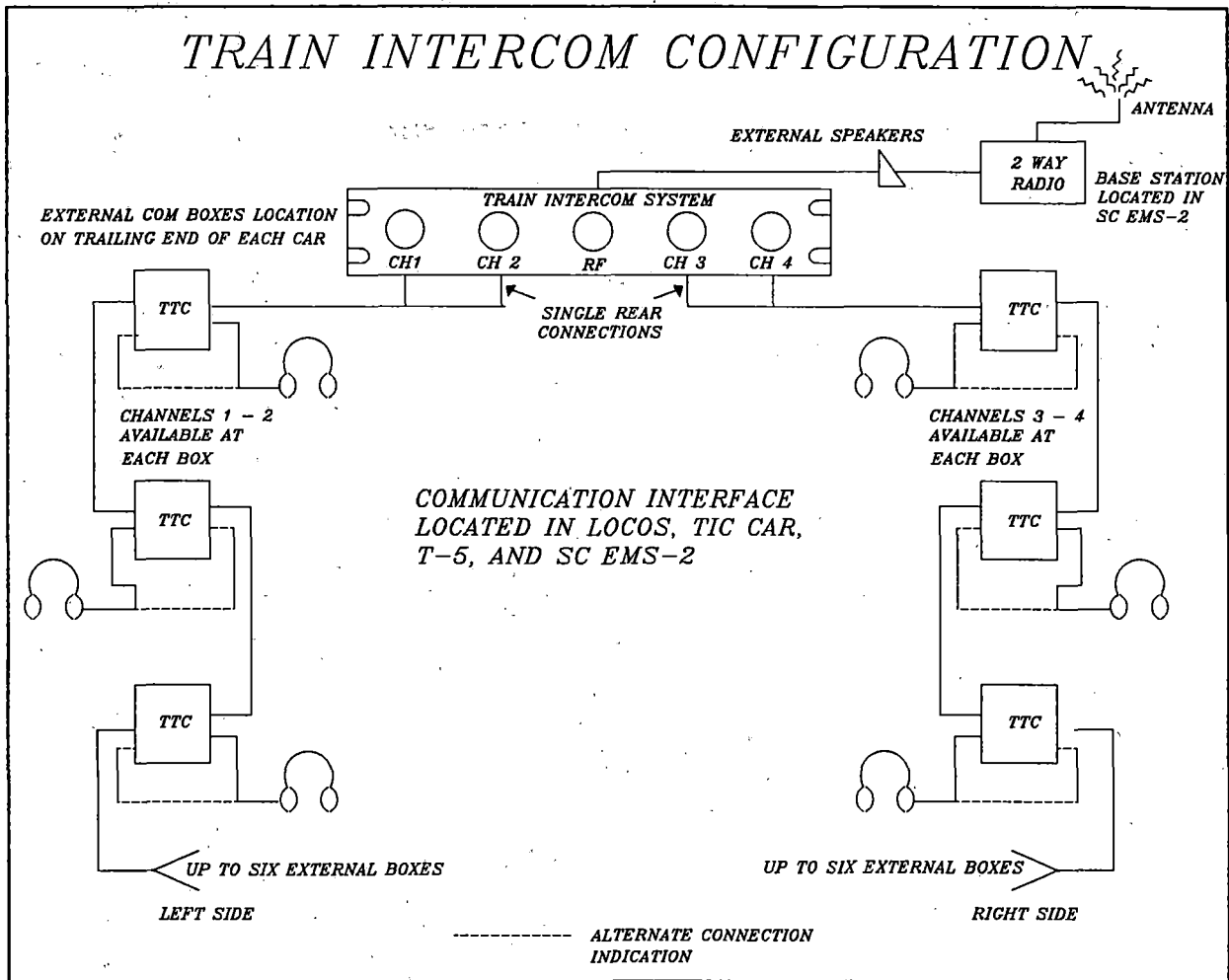
Video cameras were mounted on top of the lead locomotive looking forward and at the end of the T-5 Car looking aft to allow personnel in the TIC to view train motion, as there were no windows in the TIC. Figure 5.5 shows the video cameras mounted on the leading locomotive.



**Figure 5.5 Video Cameras Mounted on the Leading Locomotive**

## 5.4 COMMUNICATION SYSTEM

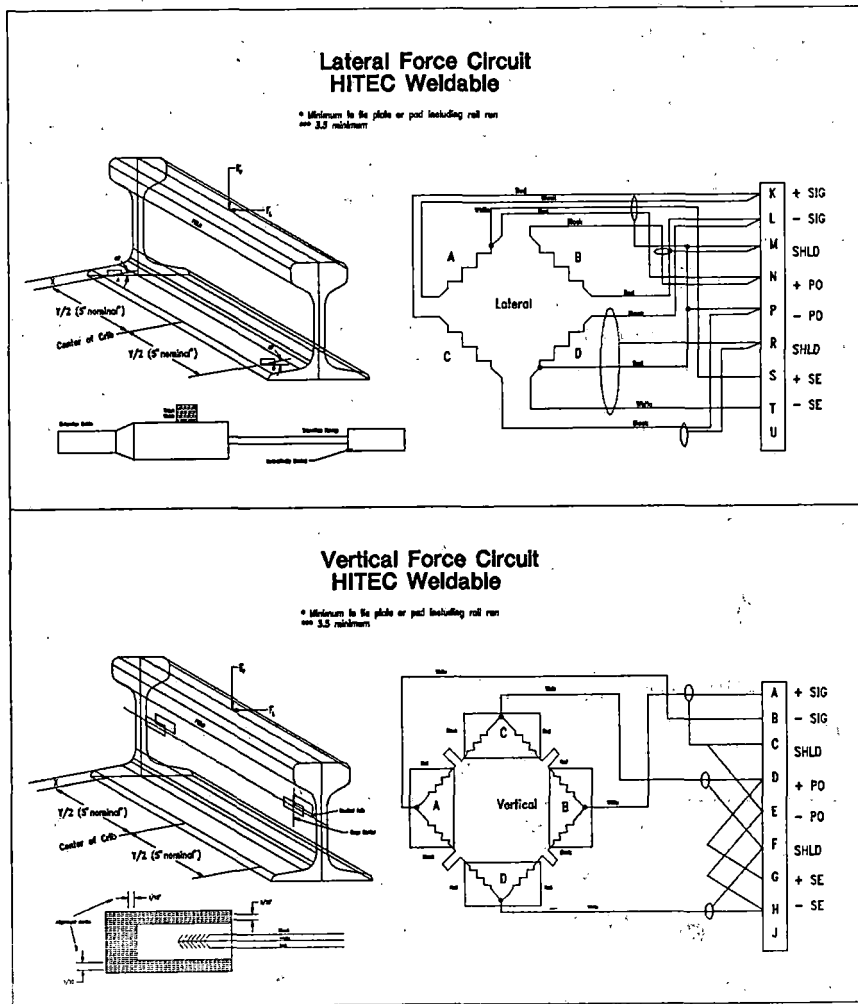
Communication between cars was maintained through an intercom network installed by the AAR. Figure 5.6 shows the intercom configuration.



**Figure 5.6 Train Intercom Configuration**

## 5.5 WAYSIDE MEASUREMENT SYSTEM

The primary measurement of the wayside instrumentation system was rail force. Vertical and lateral forces were measured by strain gage patterns mounted on the web and base of each rail at various locations on the Balloon and WRM tracks during curving tests. The bridge outputs were processed electronically to calculate lateral and vertical wheel force for each wheel of the train. Appendix D contains the wayside instrumentation measurement list. Figure 5.7 is a schematic of the lateral and vertical strain gage setups.



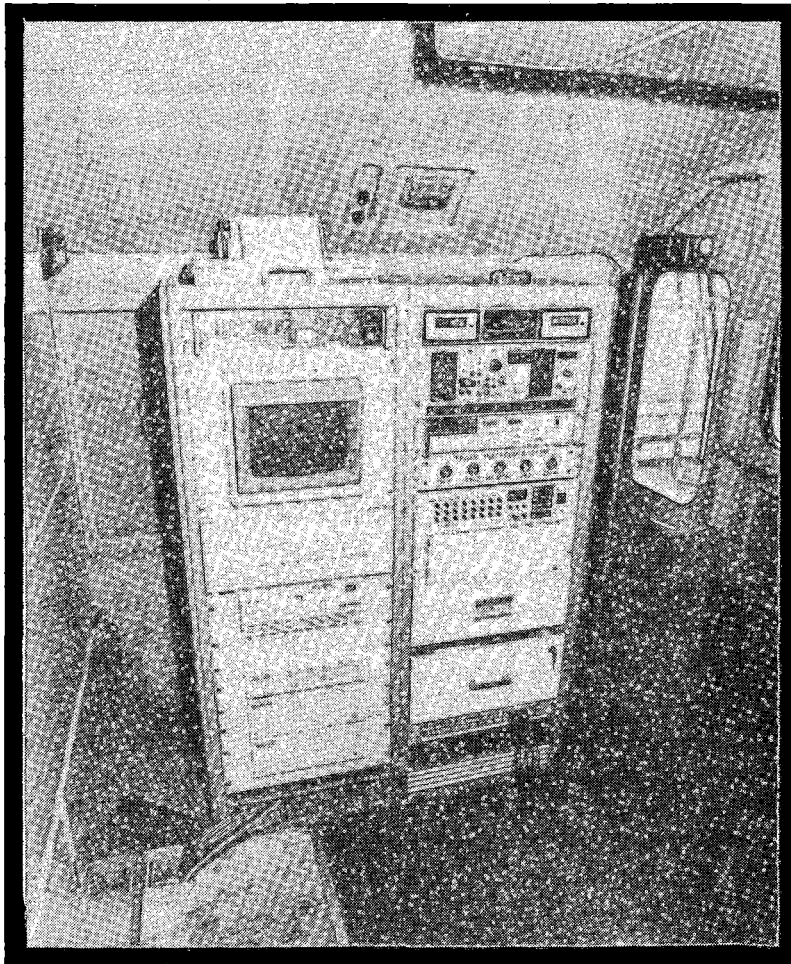
**Figure 5.7 Lateral and Vertical Rail Force Measurement**

## **5.6 STATIC BRAKE TEST INSTRUMENTATION**

The Static Brake Test was performed near a compressor or locomotive to supply air to the car brake system. A single car test device was connected between the compressor and the car. The single car test device was used to control the brakes on the car. An air gage was installed in the brake line of the car to measure brake cylinder pressure. Next, the brake shoes on the A-end of the car were removed and eight instrumented shoes were used to measure the brake shoe force. The same test was performed on the B-end of the car. While at the B-end, an instrumented shear pin was installed in the hand brake chain to measure the hand brake force that was applied during the test. All measurements were displayed with a digital readout. In summary, ten transducers were used: eight instrumented brake shoes, one air gage, and one instrumented shear pin.

## **5.7 LOCOMOTIVE DATA ACQUISITION SYSTEM**

Locomotive performance data was obtained from each locomotive and monitored from data acquisition equipment mounted in the second locomotive (Figure 5.8). Appendix E contains the locomotive measurements.



**Figure 5.8 Locomotive Data Acquisition System**

## 6.0 RESULTS

### 6.1 TRACK WORTHINESS TEST RESULTS

Pre-test predictions were made with the TDM for twist and roll, pitch and bounce, and curving. Appropriate predictions are noted in each subsection. They were extracted from a presentation made at the test readiness review. Chapter XI criteria were used as a guideline to measure the performance of train and to indicate safe conduct of each test. **The tests were not performed to certify any car. The criteria were not pass/fail.**

#### 6.1.1 High Speed Stability

There were three limiting criteria for the Hunting Test: (1) maximum axle sum L/V of 1.3 sustained for 50 milliseconds, and (2) maximum peak-to-peak car body lateral acceleration of 1.0 g sustained for 20 seconds, or (3) a 1.5 g peak-to-peak single occurrence. The acceleration measurements were not made by AAR so the only criterion reported on is axle sum L/V. The maximum test speed was 60 mph. The performance of the cars monitored did not exceed the Chapter XI criteria during this test. Table 6.1 is a tabulation of hunting results.

**Table 6.1 Hunting Results**

SPEED (mph)	MAXIMUM AXLE ABSOLUTE SUM L/V			
	FUEL CAR	LAUNCH CONTROL CAR	MISSILE LAUNCH CAR	SECURITY CAR
40	0.29	0.34	0.18	0.30
45	0.29	0.26	0.18	0.29
50	0.29	0.38	0.23	0.35
55	0.29	0.61	0.38	0.42
58	0.36	0.69	0.46	0.91

### 6.1.2 Pitch and Bounce

The performance criterion listed in Chapter XI for pitch and bounce was in reference to minimum vertical wheel load. The limit was 10 percent of the static wheel load.

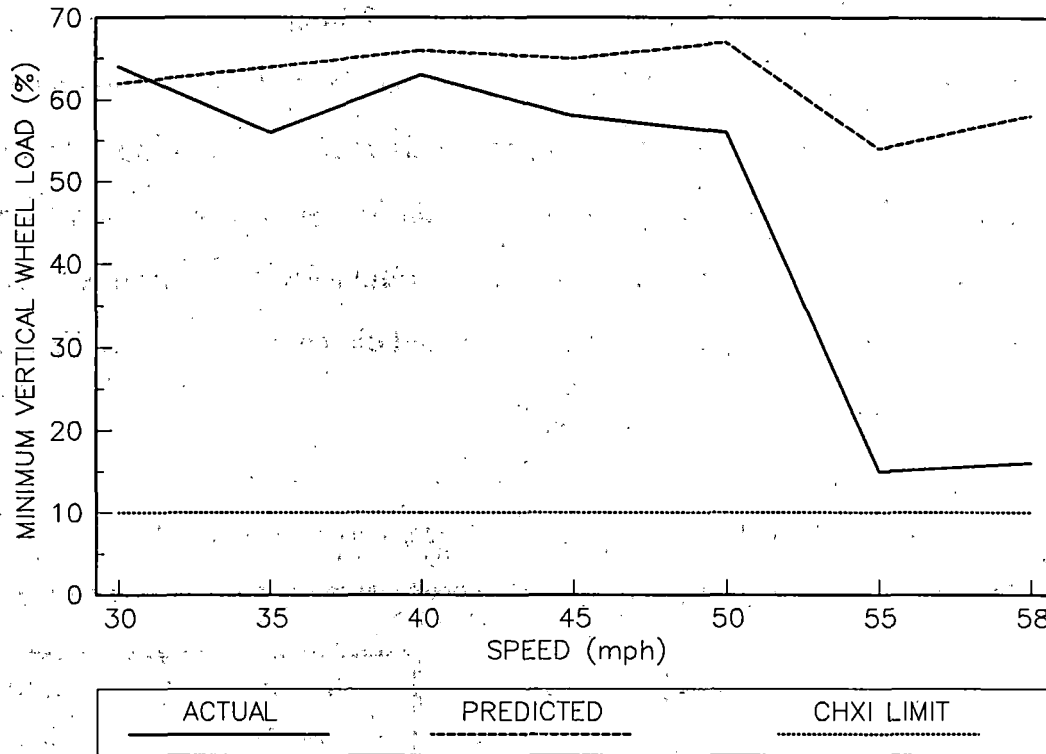
The first step in data analysis was to determine the static wheel load for each instrumented wheel. Low speed twist and roll test runs were analyzed to determine the rolling unperturbed static wheel load. To determine the static wheel load, the entrance zone to twist and roll was analyzed. This is tangent track and is well maintained. Table 6.2 is a tabulation of pitch and bounce minimum vertical wheel load percentages. The performance of the cars monitored did not exceed the Chapter XI criteria during this test.

**Table 6.2 Pitch and Bounce Test Results Summary**

SPEED (mph)	MINIMUM VERTICAL WHEEL LOAD (%)							
	FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
	ACT.	PRED.	ACT.	PRED.	ACT.	PRED.	ACT.	PRED.
30	64	62	69	68	77	81	77	71
35	56	--	67	--	75	--	78	--
40	63	66	65	67	74	82	76	69
45	58	65	66	68	76	83	79	67
50	56	67	63	68	75	81	78	63
55	15	54	63	67	75	83	79	66
58	16	58	64	64	76	79	73	65



The Fuel Car was the only vehicle that experienced significant dynamic activity. The minimum vertical wheel load of 15 percent at 55 mph was near the limit of 10 percent. Figure 6.1 shows a comparison of actual, predicted, and limiting values for the Fuel Car.



**Figure 6.1 Fuel Car Pitch and Bounce Test Results Compared to Predictions**

The lowest vertical wheel load was 15 percent at 55 mph. This was somewhat lower than the predicted 54 percent. The minimum vertical wheel load increased slightly to 16 percent at 58 mph. It was not possible to reach 60 mph before entering the test zone due to the length of the track before the test section.

### 6.1.3 Constant Curving

Chapter XI criteria for constant curving is 95th percentile wheel and axle L/V's of 0.8 and 1.3 respectively. This means that a wheel L/V can exceed 0.8 for 5 percent of the total test time. In all other tests the time limit is 50 milliseconds. Tests were performed in the clockwise and counterclockwise directions on the 5- and 7.5-degree curves of the Balloon Track at speeds of 17, 30, and 38 mph. Tests were also performed in the counterclockwise direction on the 10-degree curve of the WRM at speeds of 12 mph to 24 mph. Predictions were made for the 7.5-, 10-, and 12-degree curves of the WRM. No predictions were made for the Balloon Track. Tables 6.3 and 6.4 summarize results for the 7.5-degree test on the Balloon Track. The performance of the cars monitored did not exceed the Chapter XI criteria during the 7.5-degree Balloon Curve Test.

**Table 6.3 Balloon Constant 7.5-Degree Curve Wheel L/V's**

SPEED (mph)	DIR	WHEEL L/V							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		MAX	95%	MAX	95%	MAX	95%	MAX	95%
17	CW	.78	.56	.69	.55	.58	.42	.64	.46
30	CW	.69	.54	.64	.52	.53	.33	.69	.48
38	CW	.67	.49	.72	.52	.47	.27	.61	.46
17	CCW	--	.73	.78	.56	.70	.41	--	.57
30	CCW	.76	.59	.76	.57	.70	.49	.69	.52
38	CCW	.77	.51	.77	.48	.80	.44	.67	.52

**Table 6.4 Balloon Constant 7.5-Degree Curve Axle Sum L/V's**

SPEED (mph)	DIR	AXLE SUM L/V							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		MAX	95%	MAX	95%	MAX	95%	MAX	95%
17	CW	1.24	.98	1.13	.98	.97	.80	1.04	.88
30	CW	1.13	.98	1.16	.95	.94	.66	1.04	.94
38	CW	1.14	.93	1.15	.95	.92	.55	1.09	.91
17	CCW	--	1.23	1.38	1.06	1.04	.77	--	1.05
30	CCW	1.33	1.06	1.16	.95	1.07	.91	1.22	.95
38	CCW	1.29	.95	1.19	.92	1.28	.71	1.18	.95

The results reflect maximum and 95th percentile values and are for the steady state condition only. The steady state condition was assumed to begin for each car when it was completely in the curve and to end just before the leading end of the car began to enter the exit spiral. Curve entry and exit are covered in the Section 6.1.4. No major difference was found between the clockwise and counterclockwise data.

Tables 6.5 and 6.6 summarize wheel and axle sum L/V's for the 10-degree curve test on the WRM. The performance of the cars monitored did not exceed the Chapter XI criteria during the 10-degree WRM curve test.

**Table 6.5 Counterclockwise WRM Constant 10-Degree Curve Wheel L/V's**

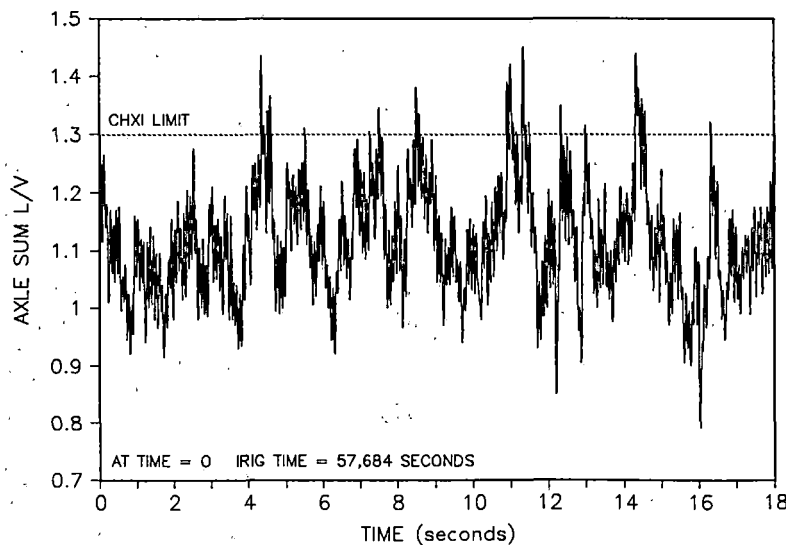
SPEED (mph)	WHEEL L/V											
	FUEL CAR			LAUNCH CONTROL CAR			MISSILE LAUNCH CAR			SECURITY CAR		
	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED
12	.93	.73	.55	.72	.54	.54	.70	.51	.46	.72	.55	.53
16	.84	.71		.71	.53		.65	.48		.76	.53	
18	.83	.68		.72	.54		.66	.47		.71	.54	
20	.98	.64		.68	.50		.64	.46		.74	.52	
22	.83	.53		.60	.46		.61	.47		.66	.49	
24	.73	.51	.44	.64	.46	.49	.58	.44	.37	.68	.48	.50
32			.50			.45			.34			.49

**Table 6.6 Counterclockwise WRM Constant 10-Degree Curve Axle Sum L/V's**

SPEED (mph)	AXLE SUM L/V											
	FUEL CAR			LAUNCH CONTROL CAR			MISSILE LAUNCH CAR			SECURITY CAR		
	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED
12	1.45	1.23	1.05	1.24	1.02	1.05	1.21	.94	.88	1.27	1.03	1.04
16	1.36	1.19		1.28	.99		1.14	.88		1.33	1.00	
18	1.30	1.15		1.21	1.00		1.14	.87		1.25	.61	
20	1.45	1.10		1.27	.95		1.12	.84		1.33	.99	
22	1.25	.97		1.15	.88		1.12	.90		1.19	.93	
24	1.17	.93	.97	1.10	.87	.96	1.06	.83	.72	1.17	.91	.98
32			.90			.88			.67			.92

Testing was halted at 24 mph after ground observers noticed scrapes on the wheel flanges on some of the cars indicating possible wheel climb. With the limited number of instrumented wheel sets, it was difficult to verify whether the wheels were climbing the rail or in which curve climbing was taking place; the 10- or 12-degree curve. Testing was halted at the request of the USAF. Some wheel and axle sum L/V values did exceed 0.8 and 1.3 for the Fuel Car and the Security Car.

The Fuel Car exhibited poor behavior in the 10-degree curve at 12 and 20 mph with maximum axle sum L/V's of 1.45. The 95th percentile values were within Chapter XI limits, however. This behavior at 12 mph was most likely due to the dynamic response of the Fuel Car to the track. The 10-degree curve contains the dynamic curving test section. This section of track mixes twist and roll perturbations with gage variations. The perturbations were removed for the PKRG train curving tests, but the track retained some memory of its former shape. During Fuel Car Chapter IX testing, it was found that the resonance of liquid slosh in the tank corresponded to 12 mph in twist and roll. Figure 6.2 is a time history of the Fuel Car axle sum L/V at 12 mph in the 10-degree curve.



**Figure 6.2 Fuel Car 10-Degree Curving Axle Sum L/V Time History**

Tables 6.7 and 6.8 list the wheel and axle sum L/V's for the 12-degree curve.

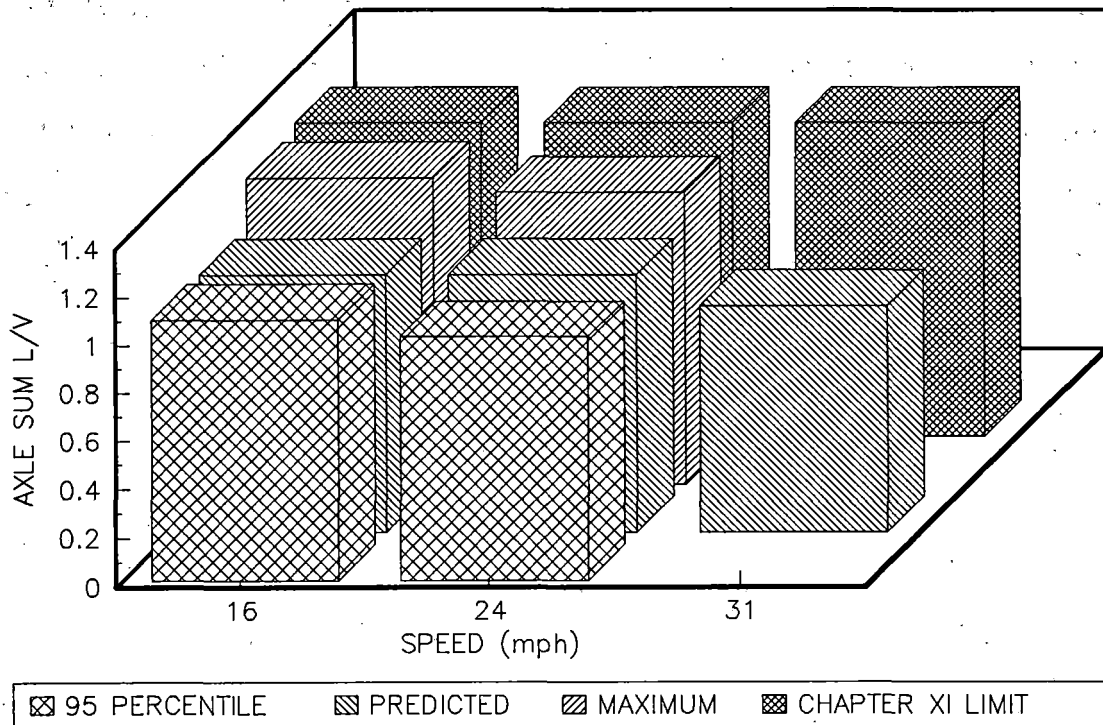
**Table 6.7 Counterclockwise WRM Constant 12-Degree Curve Wheel L/V's**

SPEED (mph)	WHEEL L/V											
	FUEL CAR			LAUNCH CONTROL CAR			MISSILE LAUNCH CAR			SECURITY CAR		
	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED
12	.80	.64		.74	.60		.71	.62		.80	.58	
16	.79	.67	.56	.75	.62	.56	.70	.59	.56	.76	.60	.55
18	.79	.68		.72	.59		.68	.56		.77	.61	
20	.79	.69		.70	.60		.70	.53		.77	.59	
22	.74	.63		.60	.53		.60	.49		--	.54	
24	.78	.64	.50	.69	.56	.55	.66	.49	.48	.72	.55	.56
31			.48			.49			.45			.48

**Table 6.8 Counterclockwise WRM Constant 12-Degree Curve Axle Sum L/V's**

SPEED (mph)	AXLE SUM L/V											
	FUEL CAR			LAUNCH CONTROL CAR			MISSILE LAUNCH CAR			SECURITY CAR		
	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED	MAX	95%	PRED
12	1.31	1.11		--	1.06		1.19	1.08		1.29	1.05	
16	1.31	1.14	1.13	1.28	1.10	1.08	1.21	1.06	1.05	1.27	1.08	1.07
18	1.26	1.15		1.24	1.07		1.17	1.03		1.30	1.10	
20	1.33	1.18		1.20	1.08		1.16	.99		1.28	1.08	
22	1.16	1.06		1.05	.94		1.06	.88		--	.98	
24	1.20	1.10	.99	1.16	1.00	1.05	1.12	.90	.94	1.21	1.01	1.07
31			.96			.95			.86			.94

The single occurrence L/V values for the 12-degree constant curve test were over the Chapter XI criteria of 0.8 wheel and 1.3 axle sum for the Fuel Car. The 95th percentile values were within criteria. The 95th percentile values were much closer to the predictions. The model predictions were slightly lower than the actual results. The model uses idealized track. Figure 6.3 shows the maximum and 95th percentile axle sum L/V's for the Security Car in the 12-degree curve. Predicted values and the Chapter XI limit are also shown.



**Figure 6.3 Security Car Axle Sum L/V's for the 12-Degree Curve**

The fact that the wheel L/V trends were very similar to the axle sum L/V trends indicates a dry track and believable IWS results for three-piece truck performance. The L/V for the wheel that is not flanging should not exceed the static coefficient of friction of the wheel/rail interface. The performance of the vehicles was within Chapter XI criteria, but only eight axles were instrumented. The performance of the Security Car and Launch Control Car, equipped with one instrumented wheel set each, could not be truly quantified.

Therefore, one location in the middle of the 12-degree curve, one location in the bunched spiral, and one location in the middle of the 10-degree curve were instrumented to measure dynamic vertical and lateral forces on the rail due to the train. This was to help establish confidence in the train during curving and bunched spiral negotiation. The data, given in Appendix F, showed no train instability was detected at the points of the track that were measured.



### 6.1.4 Spiral Negotiation

Curve entry and exit performance was measured during the constant curving tests. The 7.5- and 10-degree curves had conventional spirals at each end. As mentioned, a spiral is the section of track which makes the transition from tangent to curve with constant changes in curvature and superelevation at the same time. The 12-degree curve had a bunched spiral at one end. The bunched spiral was curve-entry for the counterclockwise runs. Chapter XI only specifies the bunched spiral for this test. The Chapter XI bunched spiral makes the usual change in curvature but has concentrated change in superelevation in the middle of the spiral. The limiting criteria for spiral negotiation were 10 percent minimum vertical wheel load and a maximum wheel L/V of 0.8. Tables 6.9 and 6.10 show the 7.5-degree curve entry and exit wheel L/V's and minimum vertical wheel loads respectively. Predictions were not made for the 7.5-degree curve entry or exit on the Balloon Track. The Fuel Car exceeded the Chapter XI criteria in the 7.5-degree curve exit. A single wheel L/V of 0.98 was measured that exceeded 0.8 for 220 msec.

**Table 6.9 Balloon 7.5-Degree Curve Entry and Exit Wheel L/V's**

SPEED (mph)	DIR	MAXIMUM WHEEL L/V							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		ENTRY	EXIT	ENTRY	EXIT	ENTRY	EXIT	ENTRY	EXIT
17	CW	.44	.67	.62	.61	.55	.40	.47	.54
30	CW	.39	.57	.55	.47	.37	.32	.56	.49
38	CW	.42	.55	.58	.44	.32	.29	.58	.42
17	CCW	.58	.98*	.52	.66	.42	.49	.70	.78
30	CCW	.51	.73	.52	.54	.39	.45	.61	.58
38	CCW	.48	.67	.48	.56	.46	.47	.58	.54

\* Exceeded Chapter XI limit of 0.8 for 220 msec.

**Table 6.10 Balloon 7.5-Degree Curve Entry and Exit Minimum Vertical Wheel Loads**

SPEED (mph)	DIR	MINIMUM VERTICAL WHEEL LOAD (%)							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		ENTRY	EXIT	ENTRY	EXIT	ENTRY	EXIT	ENTRY	EXIT
17	CW	61	58	76	82	64	70	64	60
30	CW	59	59	67	67	61	68	47	66
38	CW	44	46	55	42	48	52	16	58
17	CCW	68	60	65	65	73	57	74	44
30	CCW	72	70	70	61	70	66	71	58
38	CCW	61	54	59	52	60	51	65	65

Tables 6.11 and 6.12 summarize the 10-degree curve entry and exit results. Results are shown for the counterclockwise operational direction. The Fuel Car exceeded the Chapter XI criteria on three tests. The longest duration was of 90 milliseconds over the 0.8 limit. The Chapter XI limits were exceeded at 16 and 18 mph.

**Table 6.11 10-Degree Curve Entry and Exit Maximum Wheel L/V's**

SPEED (mph)	ENTRY OR EXIT	MAXIMUM WHEEL L/V							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		Act	Pred	Act	Pred	Act	Pred	Act	Pred
12	Entry	.35	.65	.39	.65	.27	.48	.44	.68
16	Entry	.22		.42		.30		.48	
18	Entry	.38		.50		.31		.48	
20	Entry	.33		.43		.30		.49	
22	Entry	.27		.39		.33		.48	
24	Entry	.31	.55	.39	.64	.33	.41	.46	.60
32	Entry		.50		.67		.33		.40
12	Exit	.71	.64	.65	.84	.62	.46	.78	.75
16	Exit	.91*		.64		.55		.64	
18	Exit	.90**		.61		.53		.67	
20	Exit	.81***		.62		.52		.62	
22	Exit	.68		.51		.51		.58	
24	Exit	.72	.50	.62	.95	.49	.35	.58	.88
32	Exit		.49		1.01		.30		.96

\* Exceeded Chapter XI limit of 0.8 for 59 msec.

\*\* Exceeded Chapter XI limit of 0.8 for 90 msec.

\*\*\* Exceeded Chapter XI limit of 0.8 for 10 msec.

**Table 6.12 10-Degree Curve Entry and Exit Minimum Vertical Wheel Loads**

SPEED (mph)	ENTRY OR EXIT	MINIMUM VERTICAL WHEEL LOAD (%)							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		Act	Pred	Act	Pred	Act	Pred	Act	Pred
12	Entry	61	67	65	37	74	56	53	50
16	Entry	75		74		78		51	
18	Entry	62		62		79		68	
20	Entry	67		72		77		68	
22	Entry	49		74		78		47	
24	Entry	45	63	62	32	73	65	56	30
32	Entry		57		19		60		18
12	Exit	68	56	66	34	61	53	40	39
16	Exit	76		76		67		44	
18	Exit	71		72		68		51	
20	Exit	76		77		73		58	
22	Exit	71		80		64		50	
24	Exit	63	64	73	31	73	63	51	35
32	Exit		50		22		62		21

As curve entry, the bunched spiral was watched closely. The curving tests were not performed in the clockwise direction, at the direction of the USAF, because the Maintenance Car experienced wheel lift in the bunched spiral curve exit at 24 mph during individual car testing. Tables 6.13 and 6.14 summarize the 12-degree curve entry and exit results. Curve entry was the bunched spiral and curve exit was the conventional spiral. The Chapter XI limit was exceeded once; however, it was only for 20 milliseconds. The 50 millisecond criteria was never exceeded for any of the cars monitored.

**Table 6.13 12-Degree Curve Entry And Exit Maximum Wheel L/V's**

SPEED (mph)	ENTRY OR EXIT	MAXIMUM WHEEL L/V							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		Act	Pred	Act	Pred	Act	Pred	Act	Pred
12	Entry	.47		.61		.66		.65	
16	Entry	.50	.72	.59	.67	.68	.60	.71	.61
18	Entry	.49		.66		.61		.69	
20	Entry	.52		.63		.54		.73	
22	Entry	.51		.58		.51		.64	
24	Entry	.51	.63	.53	.71	.49	.46	.68	.75
31	Entry		.56		.73		.50		.71
12	Exit	.64		.63		.65		.67	
16	Exit	.81*	.80	.63	.95	.61	.54	.74	.99
18	Exit	.76		.72		.61		.70	
20	Exit	.77		.72		.58		.72	
22	Exit	.55		.63		.49		.56	
24	Exit	.70	.61	.66	1.05	.52	.44	.67	1.10
32	Exit		.52		1.13		.43		1.22

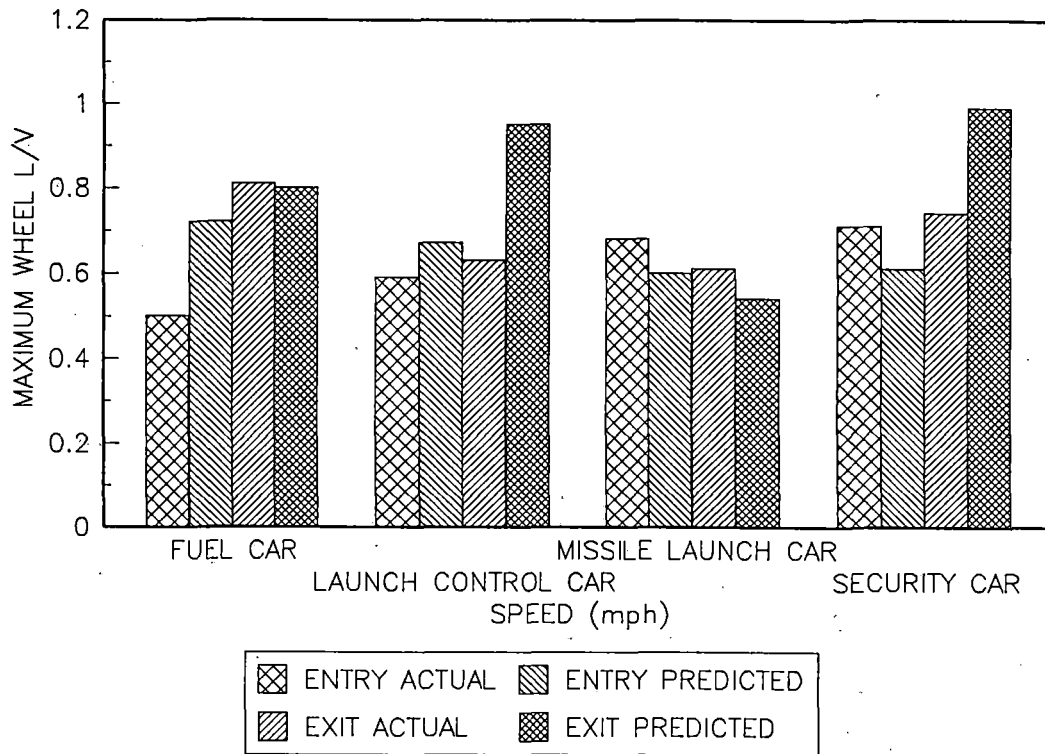
\* Exceeded Chapter XI limit of 0.8 for 20 milliseconds.

**Table 6.14 12-Degree Curve Entry And Exit Minimum Vertical Wheel Loads**

SPEED (mph)	ENTRY OR EXIT	MINIMUM VERTICAL WHEEL LOAD (%)							
		FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
		Act	Pred	Act	Pred	Act	Pred	Act	Pred
12	Entry	56		72		60		44	
16	Entry	54	57	74	34	58	56	40	35
18	Entry	58		75		60		39	
20	Entry	54		75		60		35	
22	Entry	53		64		64		33	
24	Entry	45	54	71	14	56	56	24	23
32	Entry		50		11		53		16
12	Exit	52		76		55		62	
16	Exit	59	48	70	19	62	43	63	21
18	Exit	57		73		63		65	
20	Exit	61		69		67		65	
22	Exit	49		67		69		65	
24	Exit	45	55	64	15	66	54	62	18
32	Exit		48		16		71		13

For the 12-degree curve, the highest wheel L/V observed was 0.81 for 20 milliseconds in the conventional spiral exit for the Fuel Car at 16 mph. Figure 6.4 shows a comparison of actual and predicted wheel L/V's for 12-degree curve entry and exit at 16 mph. The predictions for the Fuel Car and Missile Launch Car were quite accurate. Models for those two cars were previously validated through individual car testing. However, the curve exit predictions for the Security Car and Launch Control Car were not very accurate. This could be due to : 1) the models of the cars were never validated

through individual car tests, or 2) only one of eight axles was instrumented on each of the two cars. The cars could have experienced high L/V's at locations that weren't instrumented.



**Figure 6.4 Wheel L/V's for Curve Entry and Exit at 16 mph**

### 6.1.5 Buff and Draft Curving

Buff and draft curving tests were performed on the Balloon Track during constant curving. Compressive in-train forces (buff) were generated by decelerating the train in the body of the curve. Tensile in-train forces (draft) were generated by accelerating the train in the body of the curve. No special train handling was employed to generate worst case buff/draft conditions. Testing was performed only in the counterclockwise direction. Table 6.15 is a summary of maximum wheel L/V's measured during the buff and draft tests. The Chapter XI wheel L/V criterion was exceeded twice on the Fuel Car during the buff and draft test. However, neither had duration of more than 50 milliseconds.

**Table 6.15 7.5-Degree Curving Buff and Draft Wheel L/V's**

SPEED (mph)	MAXIMUM WHEEL L/V			
	FUEL CAR	LAUNCH CONTROL CAR	MISSILE LAUNCH CAR	SECURITY CAR
30-20	.83*	.69	.70	.70
40-30	.76	.67	.73	.66
40-20	.88*	.62	.68	.68
20-40	.74	.68	.73	.67

\* Exceeded Chapter XI limit of 0.8 for 20 msec.

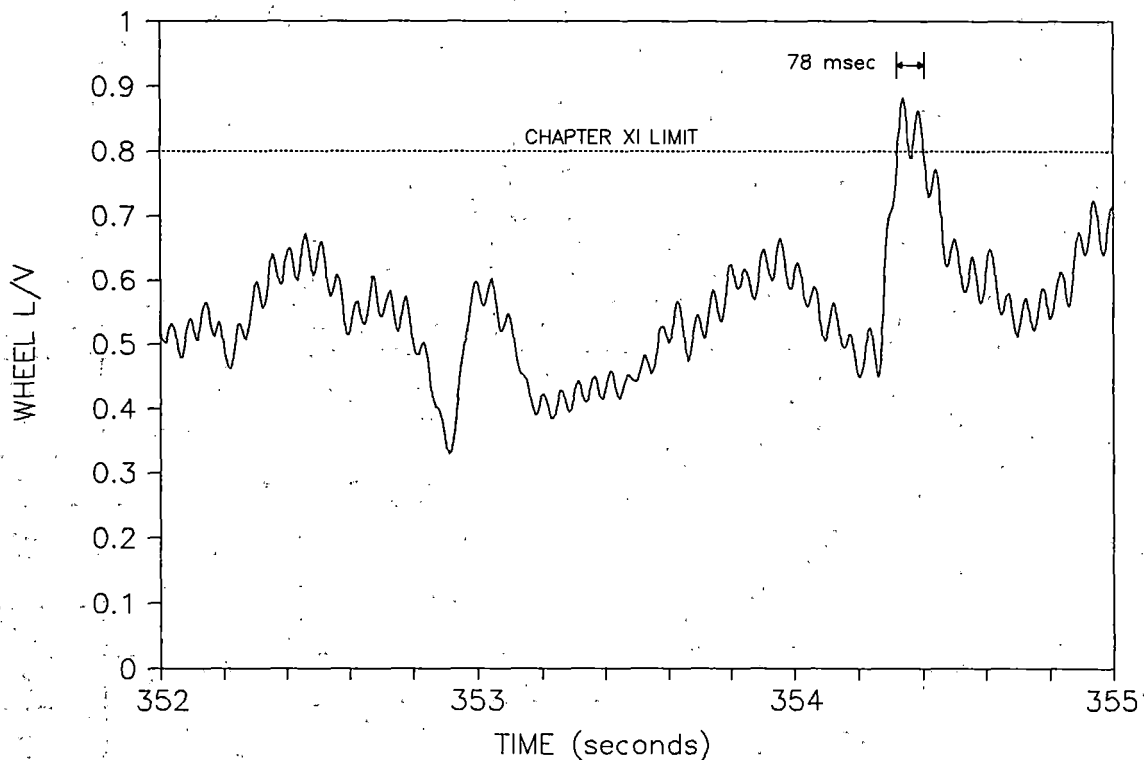
\*\* Exceeded Chapter XI limit of 0.8 for 35 msec.

Also, in the middle of the 7.5-degree curve of the Balloon Track, five sets of cribs were instrumented to measure dynamic vertical and lateral forces on the rails due to the train. This was done as an extra measurement to verify wheel/rail interaction throughout the train and to check for low vertical wheel loads and/or high L/V ratios. The reason these wayside measurements were taken was that there were not enough instrumented wheel sets on the train to be able to verify each cars' stability in accepting buff and draft



forces dynamically in a curve. There were no runs that exceeded Chapter XI limits. The data is included in Appendix F.

A maximum wheel L/V of 0.88 was measured from an instrumented wheel set during the 40 mph to 20 mph deceleration run. Figure 6.5 is a time history showing a single wheel L/V for the Fuel Car. It is only a 3-second extraction from a much larger time history of the entire run. The L/V exceeded 0.8 for 78 milliseconds. No Chapter XI limits were exceeded in the acceleration or draft test.



**Figure 6.5 Fuel Car Wheel L/V Time History from Buff Curving Test**

### 6.1.6 Twist and Roll

Chapter XI specified three limiting criteria for twist and roll. The first criterion was a 10 percent minimum wheel load for at least 50 millisecond. The second criterion was a maximum axle sum L/V of 1.3 for at least 50 millisecond, and the third criterion was a maximum car body roll angle of 6 degrees peak-to-peak. The roll angle data was not available for this report. Tables 6.16 and 6.17 summarize the actual test data and predictions for each criterion. The performance of the cars monitored did not exceed the Chapter XI criteria during the twist and roll test.

**Table 6.16 Twist and Roll Maximum Axle Sum L/V's**

SPEED (mph)	MAXIMUM AXLE SUM L/V							
	FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
	ACT.	PRED.	ACT.	PRED.	ACT.	PRED.	ACT.	PRED.
10 (12)	.33	.31	.27	.26	.55	.14	.45	.26
15 (16)	.30	.34	.24	.24	.17	.15	.40	.23
20	.34	.35	.27	.24	.16	.17	.45	.25
22	.47	.36	.31	.26	.19	.18	.46	.26
24	.46	.38	.32	.27	.17	.20	.42	.27
26	.58	.37	.33	.27	.17	.21	.43	.28
28	.71	.37	.41	.29	.18	.23	.48	.28
30	.71	.39	.38	.31	.18	.27	.44	.31
35 (40)	.63	.40	.37	.35	.18	.28	.45	.38

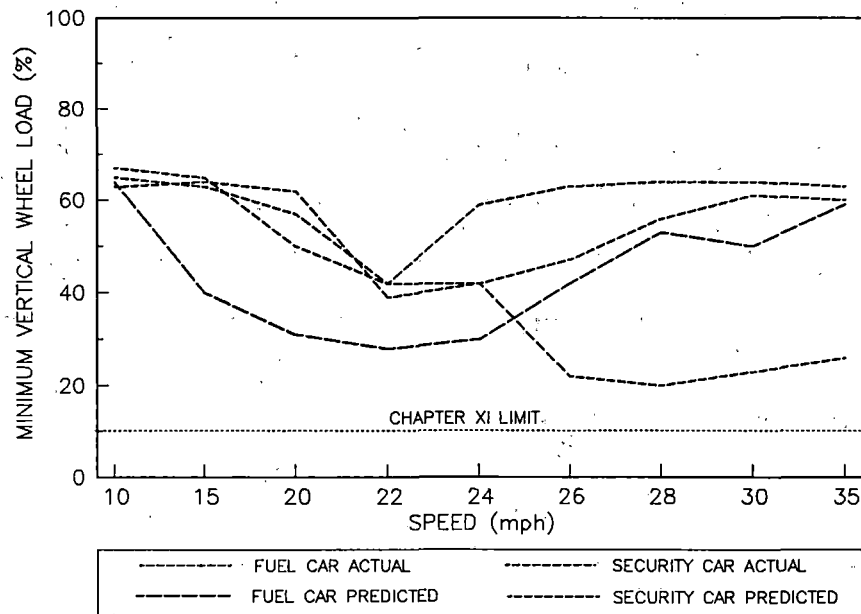
Note: Numbers in () are model speeds.

The Fuel Car minimum vertical wheel load was measured lowest at 28 mph (20 percent) but higher than the 10 percent limit. Figure 6.6 shows a comparison of actual versus predicted minimum vertical wheel loads for the Fuel Car and Security Car during twist and roll testing.

**Table 6.17 Twist and Roll Minimum Vertical Wheel Loads**

SPEED (mph)	MINIMUM VERTICAL WHEEL LOAD (%)							
	FUEL CAR		LAUNCH CONTROL CAR		MISSILE LAUNCH CAR		SECURITY CAR	
	ACT.	PRED.	ACT.	PRED.	ACT.	PRED.	ACT.	PRED.
10 (12)	63	64	67	67	67	75	67	65
15 (16)	64	40	57	64	67	74	65	63
20	62	31	67	57	65	75	50	57
22	39	28	63	45	64	77	42	42
24	42	30	63	62	64	76	42	59
26	22	42	63	68	65	76	47	63
28	20	53	61	67	66	78	56	64
30	23	50	61	64	69	77	61	64
35 (40)	26	59	59	65	65	75	60	63

Note: Numbers in () are model speeds.



**Figure 6.6 Twist and Roll Minimum Vertical Wheel Load Results versus Predictions**

### 6.1.7 Yaw and Sway

Chapter XI specified two limiting criteria for yaw and sway testing. The first criterion was a maximum absolute axle sum L/V of 1.3 for 50 milliseconds. The second limiting criterion was a maximum truck side sum L/V of 0.6 for a duration of 6 feet. In order to obtain truck side L/V's, both axles of the leading truck must be instrumented wheel sets. This was not feasible for PKRG train testing due to time and equipment limitations. Only axle sum L/V's are presented in this section (Table 6.18). Note that the perturbations on the actual track were approximately 1.0 inch, somewhat lower than the Chapter XI specified 1.25 inches. No Chapter XI limits were exceeded in any monitored car during the yaw and sway test.

Axle sum L/V's were substantially lower than Chapter XI limiting criteria.

**Table 6.18 Yaw and Sway Results**

SPEED (mph)	MAXIMUM AXLE SUM L/V			
	FUEL CAR	LAUNCH CONTROL CAR	MISSILE LAUNCH CAR	SECURITY CAR
20	.29	.83	.78	.68
30	.30	.83	.74	--
40	.33	.98	.84	.91
50	.42	.91	.81	.92
55	.46	.82	.64	.93
60	.57	.76	.74	.84

## **6.2 TRAIN HANDLING TEST RESULTS**

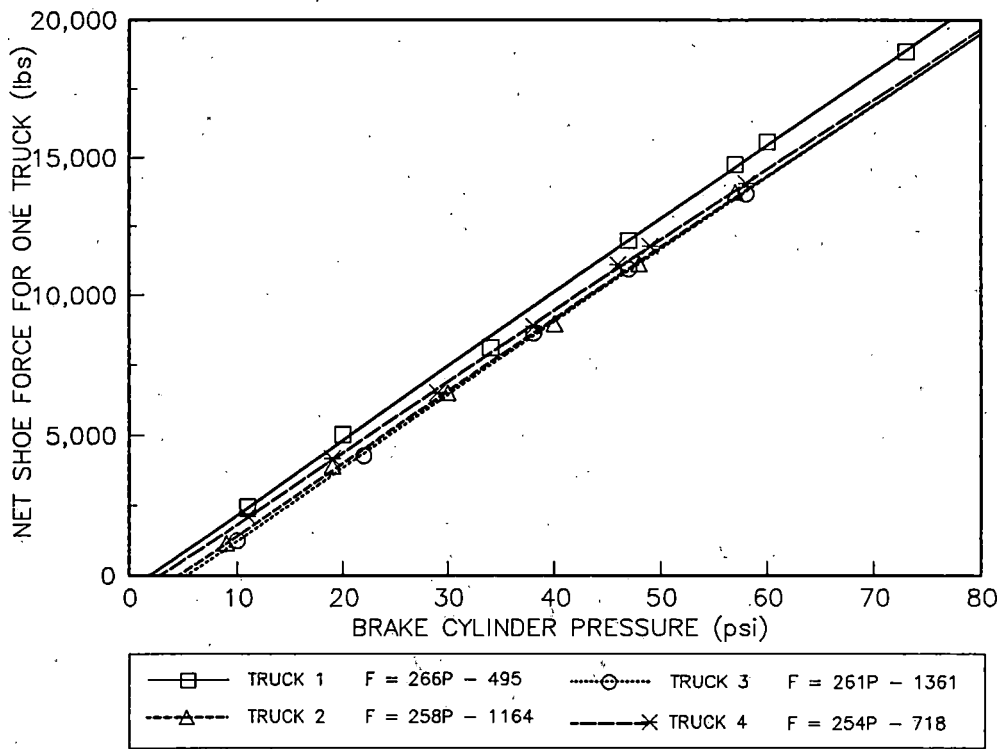
The train was rearranged for train handling testing. The T-5 instrumentation car was moved to the rear of the train. The instrumented wheel sets were also removed so that the air brakes could be operated on all cars.

### **6.2.1 Static Brake Test**

Static brake tests were performed on every car in the train. The tests, which consisted of a Single Car Test and a Net Shoe Force Test were conducted first on the Missile Launch Car, EMS-1.

Both sets of ABDW air brake equipment, one on each span bolster, passed the Single Car Test satisfactorily; however, the piston travel on the brakes had to be adjusted to meet specifications. Instrumented brake shoes were installed in place of each set of brakes on each span bolster. Data was obtained with the brake rigging tapped and untapped. Since the tapped readings are closer to the condition of the car rolling over the railroad, these values were used for the following analysis.

Figure 6.7 shows the sum of the four shoe forces on each truck for each test. Since one truck was tested at a time, the brake cylinder pressures weren't exactly equal. For this reason, a linear regression was performed for each truck. The equations at the bottom of Figure 6.7 are the best fit linear regressions for each truck. The force is equal to a constant (a) times the brake cylinder pressure plus another constant (b). The coefficients come from the best fit linear regression.



**Figure 6.7 Static Brake Test Results**

The four linear regression equations were summed, yielding a single equation for total car brake force and a net braking ratio equation.

$$TotalCar BrakeForce = 1039 * BrakeCylinder Pressure - 3738$$

$$Net Braking Ratio = TotalCar BrakeForce / 552,000$$

The tests were performed on every car and locomotive at least once. In some cases the tests were repeated at a later date. All of the results are similar; however, the most recent results are given here. Some of the cars operate at weights which are less than their maximum gross rail load. The ratios were calculated for the operational weight of each car. The ratio can be calculated for any weight or brake cylinder pressure with the following equation.

$$NBR = (\alpha * BCP + b) / W$$

Where:

NBR = Net Braking Ratio

BCP = Brake Cylinder Pressure

W = Car Weight

a & b = Factors From Linear Regression

Hand brake tests were also performed on each car. The net hand brake ratio was calculated by dividing the total brake force by the car weight. The brake force was measured at the chain force specified for each hand brake type. Table 6.19 lists the braking ratios at normal operational weight and 50 psi brake cylinder pressure. The linear regression factors are also given.

**Table 6.19 Net Braking Ratios**

CAR	OPERATIONAL WEIGHT (lbs)	NBR AT 50 PSI BCP (%)	a	b	HAND BRAKE RATIO (%)
Locomotive TBCX 4900	264,750	24.2	1281	0	19
Locomotive TBCX 4901	265,300	24.2	1285	0	19
Maintenance Car Em-1	205,300	11.4	512	-2186	24.5
Fuel Car EM-1	218,000	9.3	426	-990	15.9
Security Car EMS-2 (TIC)	411,200	8.4	697	0	6.7
Flatcar ATSF 90004	558,150	8.9	995	0	5.1
Launch Control Car EMS-1	404,150	8.8	725	0	7.4
Missile Launch Car EMS-1	552,000	8.7	1039	-3738	10.4
Security Car EMS-1	410,550	8.5	696	0	5.2
DOTX 205 (T-5)	166,550	10.1	336	0	---
Missile Launch Car EM-1	558,150	8.1	905	0	10.1

All of the net braking ratios with a 50 psi brake cylinder pressure are within the AAR standard except for the Maintenance Car. The hand brake ratios meet the AAR standard with the exception of the Fuel Car, Maintenance Car, Security Car EMS-1, Missile Launch Car EMS-1, and Missile Launch Car EM-1. The net braking ratio should be between 6.5 minimum and 10 percent maximum. The hand brake ratio should be at least 11 percent.



### 6.2.2 Train Resistance on Tangent Track

Acceleration and braking test runs were performed on a tangent track with an ascending grade of 0.617 percent. To evaluate the actual performance of the locomotive power or train braking systems, it was necessary to determine the resistance due to the ascending grade and the rolling and wind resistance of the train itself. Coasting runs were performed on the same ascending tangent. The grade resistance was determined by multiplying the train weight by the percent grade. The resistance was calculated:

$$\text{Grade Resistance} = 0.00617 * 3,455,950 \text{ lbs} = 21,323 \text{ lbs}$$

The train resistance was found by subtracting the grade resistance from the total resistance which was calculated for each coasting run in the following way.

$$\text{Average Deceleration Rate} = \delta \text{Speed} / \delta \text{Time}$$

$$\text{Total Average Resistance Force} = \text{Consist Mass} * \text{Deceleration Rate}$$

$$\text{Average Train Resistance} = \text{Total Resistance} - \text{Grade Resistance}$$

The train resistance calculations yield an average value because wind resistance is velocity dependent. The average value is useful for approximating resistance in a given speed range. Table 6.20 summarizes the coasting runs and gives average resistance values for each run.

**Table 6.20 Level Track Train Resistance Approximation**

RUN NO.	SPEED RANGE (mph)	DECELERATION RATE (ft/sec <sup>2</sup> )	TOTAL FORCE (lbs)	GRADE FORCE (lbs)	TRAIN RESISTANCE (lbs)
74-001	60-50	.261	28,188	21,323	6,865
75-001	50-30	.249	26,892	21,323	5,569
75-101	20-0	.230	24,840	21,323	3,517

The values in the previous table were calculated with a train weight of 3,455,950 pounds and a mass of 107,998 lb-sec<sup>2</sup>/ft.

### 6.2.3 Acceleration on Tangent Track

Acceleration tests were conducted on the same section of track as train resistance testing. The acceleration rate was calculated by dividing the change in velocity by the change in time. That acceleration was converted to force by multiplying by train mass. The accelerating force was added to the estimated resistance force and the grade force to yield a total force overcome by the locomotives. The acceleration for level track was then estimated. The equation used is shown below.

$$\text{Force Overcome By Locomotives} = \text{Accelerating Force} + \text{Train Resistance} + \text{Grade Force}$$

Table 6.21 lists the actual acceleration and estimated level track acceleration. Estimated train resistance and grade force are also given.

**Table 6.21 Train Acceleration Summary**

RUN NO.	TEST SPEED	ACTUAL ACCEL. RATE (ft/sec <sup>2</sup> )	ACCEL. FORCE (lbs)	GRADE FORCE (lbs)	ESTIMATED LEVEL TRACK ACCEL. RATE (ft/sec <sup>2</sup> )
76-001	20-30	.3667	39,603	21,323	.5595
77-001	30-40	.2832	30,585	21,323	.4760
78-001	50-55	.1649	17,809	21,323	.3577

### 6.2.4 Braking on Tangent Track

Braking tests were conducted on the same section of track as acceleration and train resistance. The stop distance for each condition was measured during testing but was only valid for stopping on an uphill grade of 0.617 percent. The distance for stopping on a flat tangent was calculated. This was done by adding the grade stopping distance to the measured stopping distance. Grade stopping distance was calculated from grade acceleration and stopping time. Table 6.22 lists the actual deceleration rate and the estimated stop distance with no grade.

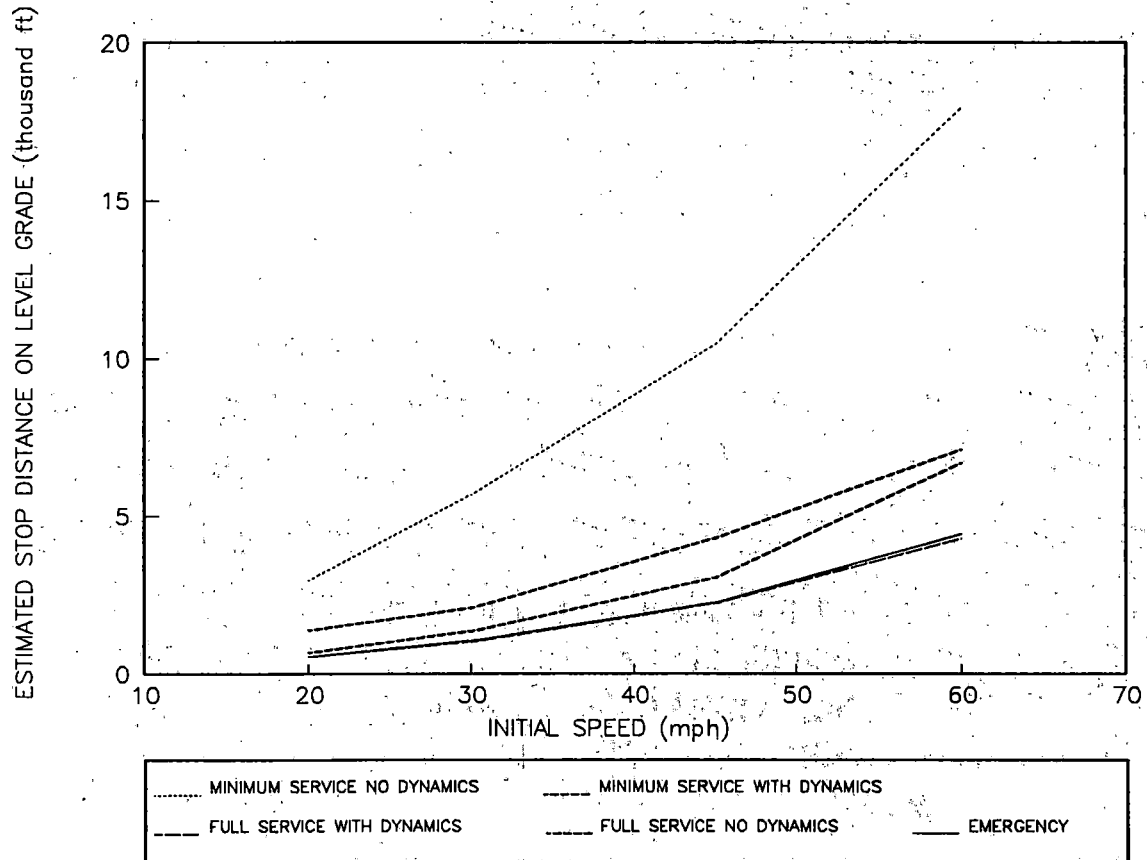
**Table 6.22 Tangent Track Train Braking Summary**

BRAKING CONDITION	TEST SPEED (mph)	ACTUAL STOP DISTANCE (ft)	STOP DISTANCE CORRECTED FOR GRADE (ft)
Minimum Service no Dynamics	20-0	1135	2967
	30-0	2692	5691
	60-0	10402	17945
Minimum Service with Dynamics	20-0	686	1396
	30-0	1320	2076
	45-0	3538	4302
	60-0	4910	7098
Full Service no Dynamics	20-0	528	695
	30-0	1162	1352
	45-0	2640	3035
	60-0	4910	6680
Full Service with Dynamics	20-0	422	570
	30-0	977	1077
	45-0	1954	2278
	60-0	3854	4430
Emergency	20-0	422	553
	30-0	898	1035
	45-0	2006	2258
	60-0	3802	4303

Note: Grade Acceleration =  $-0.1974 \text{ ft/sec}^2$

Calculating braking distance is a very complicated process. A time delay in air brake and dynamic brake operation should be factored into the process. In addition, dynamic braking is not a constant effect changing efficiency with speed.

The estimated stop distances decreased with additional air braking. Figure 6.8 shows the trend for all five conditions.



**Figure 6.8 Estimated Stop Distances on Level Grade**

### 6.2.5 Train Resistance on Curved Track

At the request of Boeing and the USAF, the coasting runs were not performed in the curves.

### 6.2.6 Braking on Curved Track

Braking tests were performed in the 10-degree curve on the WRM Track. The 10-degree curve contains an average downhill grade of 0.54 percent. The same analysis as in tangent braking was performed for curving tests. Table 6.23 summarizes the estimated stop distances with grade removed.

**Table 6.23 Train Braking in 10-Degree Curve Summary**

BRAKING CONDITION	TEST SPEED (mph)	ACTUAL STOP DISTANCE (ft)	STOP DISTANCE CORRECTED FOR GRADE (ft)
Full Service no Dynamics	12-0	370	231
	22-0	950	643
Full Service with Dynamics	12-0	317	187
	22-0	739	535
Emergency	12-0	211	185
	22-0	686	623

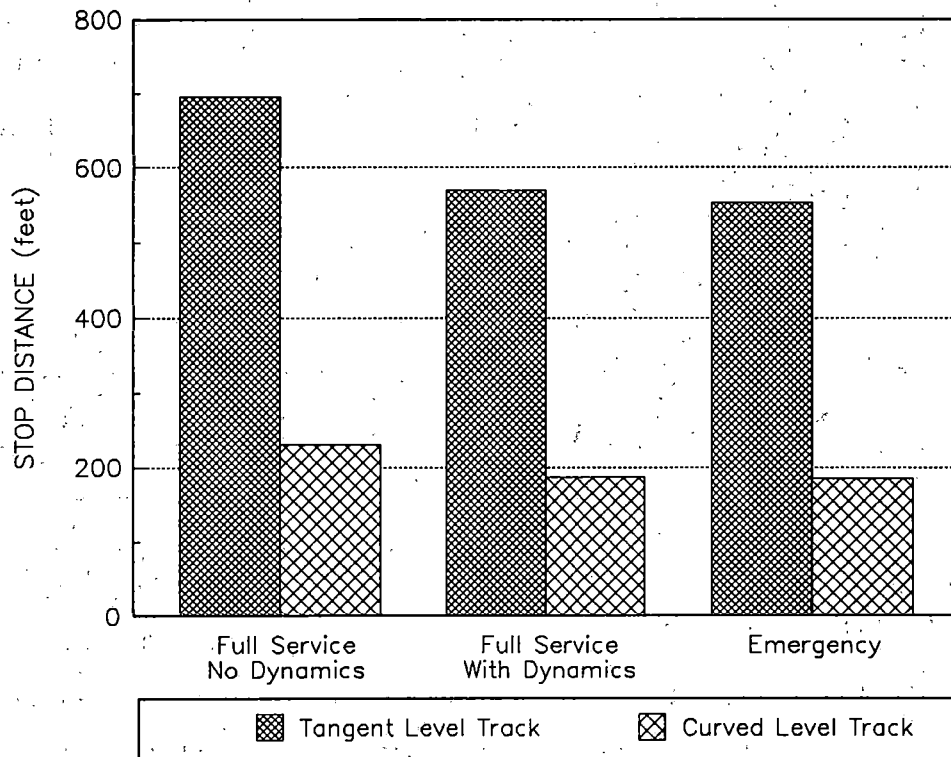
Note: Grade Acceleration = +0.1739 ft/sec<sup>2</sup>

Calculating braking distance is a very complicated process. A time delay in air brake and dynamic brake must be factored into the process. Dynamic braking is not a constant effect and changes efficiency with speed. The estimated stop distance for level track is only corrected for grade.

Also, in the middle of the 10-degree curve of the WRM loop, three sets of cribs were instrumented to measure dynamic vertical and lateral forces on the rails during braking

operation. This was done as an extra measurement to verify wheel/rail interaction and the overall stability of the train while in braking.

The stop distances were much lower in the curve than on the tangent due to curve resistance. Figure 6.9 compares the curve braking performance to the level track braking performance at 20 mph.



**Figure 6.9 Comparison of Estimated Stop Distances on Level Grade and 0.54 Percent Grade in 10-Degree Curve**

### **6.2.7 Holding on a Grade**

A test was performed to determine the ability of the locomotive independent air brakes to hold the train on a grade. This is important because the train brakes must be released and fully recharged before the train can move. If the independent brakes can not hold the train, hand brakes on the cars must be set. The problem for the PKRG train is that there is no caboose or ground crew to release the hand brakes after the air brakes are fully charged. The grade in the 5-degree curve of the WRM track where this test was performed was 2.0 percent.

The train was stopped on the grade and the locomotive independent air brakes were set. The train brakes were released and allowed to recharge. The locomotive independent air brakes could not hold the train and the train began to roll backwards down the hill. Locomotive power was then applied to accelerate the train up the grade as the independent brakes were released. The test was not repeated on lesser grades at the request of the USAF.

The total brake shoe force of the independent brakes was calculated to be 95,560 pounds per locomotive. The total brake shoe force multiplied by the brake shoe coefficient of friction yields retarding force. A coefficient of friction of 0.3 yields a retarding force of 57,336 pounds for two four axle locomotives. The force due to the 2.0 percent grade was calculated by multiplying train weight by grade to yield 69,119 pounds. The grade force was greater than the retarding force. This same analysis predicts holding on a grade of 1.66 percent to balance a grade force of 57,336 pounds. A brake shoe to wheel coefficient of friction of 0.36 would provide the 69,119 pounds of breaking force required to hold the train on a 2 percent grade.

### 6.3 TRAIN MOBILITY TEST RESULTS

The only data collected by AAR during the train mobility evaluation on the AT&SF was locomotive performance and span bolster strains. The results presented in this section will be in reference to log of locomotive performance and test execution. No analysis of train performance is presented. Span bolster strain data was given to Westinghouse for analysis. Locomotive data was supplied to Boeing for analysis.

#### 6.3.1 Stopping on Ascending Grades

Table 6.24 lists the test conditions and stop distances.

**Table 6.24 Test Results for Stopping on Ascending Grades**

CODE	GRADE (%)	DIRECTION	INITIAL SPEED (mph)	STOP DISTANCE (ft)
A1F	0.0 - 0.8	Forward	Not Performed	Not Performed
A2F	0.9 - 1.7	Forward	40	5280
A3F	1.8 - 2.6	Forward	11	264
A1R	0.0 - 0.8	Reverse	No Data	No Data
A2R	0.9 - 1.7	Reverse	17	871
A3R	1.8 - 2.6	Reverse	18	277



### 6.3.2 Air Brake Tests

The air brake tests described in Section 3.3.2 were performed at TTC by Boeing with assistance from AAR. All test results were satisfactory to Boeing.

### 6.3.3 Horizontal Curves

Curve negotiation tests were performed over 1- to 10-degree curves. The various conditions and locomotive performance are presented in Table 6.25. The locomotive performance was judged to be matched (same) or not matched for the powered tests.

**Table 6.25 Test Results for Horizontal Curving**

CODE	DEGREE OF CURVE	DIRECTION	NUMBER OF RUNS PERFORMED	LOCOMOTIVE PERFORMANCE
C1F	1 - 4	Forward	1	MATCHED
C2F	5 - 9	Forward	1	MATCHED
C3F	10 - 14	Forward	2	MATCHED
C1R	1 - 4	Reverse	1	MATCHED
C2R	5 - 9	Reverse	0	N/A
C3R	10 - 14	Reverse	1	MATCHED

### 6.3.4 Stopping on Descending Grades

Stop tests were performed while ascending grades up to 2.6 percent. The results are presented in Table 6.26.

**Table 6.26 Test Results for Stopping on Descending Grades**

CODE	DIRECTION	GRADE (%)	CONDITION	INITIAL SPEED (mph)	STOP DISTANCE (ft)
D1F	Forward	0.0 - 0.8	Train Line Air Brakes	45	4990
D2F	Forward	0.0 - 0.8	Predominantly Dynamics	43	9900
D3F	Forward	0.0 - 0.8	Emergency	45	2851
D4F	Forward	0.9 - 1.7	Train Line Air Brakes	21	1901
D5F	Forward	0.9 - 1.7	Predominantly Dynamics	27	2561
D6F	Forward	0.9 - 1.7	Emergency	26	1531
D7F	Forward	1.8 - 2.6	Train Line Air Brakes	21	1053
D8F	Forward	1.8 - 2.6	Predominantly Dynamics	20	1030
D9F	Forward	1.8 - 2.6	Emergency	21	607
D10F	Forward	1.8 - 2.6	Train Line Air Brakes	15	1240
D11F			Combined with Dynamics		
D12F	Forward	1.8 - 2.6	Emergency	15	581
D1R	Reverse	0.0 - 0.8	Train Line Air Brakes	N/P	N/P
D3R	Reverse	0.0 - 0.8	Emergency	N/P	N/P
D4R	Reverse	0.9 - 1.7	Train Line Air Brakes	20	2085
D6R	Reverse	0.9 - 1.7	Emergency	21	929
D7R	Reverse	1.8 - 2.6	Train Line Air Brakes	21	2218
D9R	Reverse	1.8 - 2.6	Emergency	21	911
D10R	Reverse	1.8 - 2.6	Train Line Air Brakes	16	1109
D12R	Reverse	1.8 - 2.6	Emergency	17	581

### 6.3.5 Superelevation

The curves on the route had various superelevations. The results are presented in Table 6.27.

**Table 6.27 Test Results for Superelevation**

CODE	SUPERELEVATION (in.)	DIRECTION	NUMBER OF TESTS PERFORMED	LOCOMOTIVE PERFORMANCE
E1F	0.0 - 1.0	Forward	1	Matched
E2F	1.1 - 2.0	Forward	1	Matched
E3F	2.1 - 3.0	Forward	1	Matched
E4F	3.1 - 4.0	Forward	1	Matched
E5F	4.1 - 5.0	Forward	0	N/A
E6F	5.1 - 6.0	Forward	0	N/A
E1R	0.0 - 1.0	Reverse	1	Matched
E2R	1.1 - 2.0	Reverse	1	Matched
E3R	2.1 - 3.0	Reverse	2	Matched
E4R	3.1 - 4.0	Reverse	1	Matched
E5R	4.1 - 5.0	Reverse	1	Matched
E6R	5.1 - 6.0	Reverse	0	N/A

### 6.3.6 Ascending Grades

Tests were performed while ascending grades up to 2.6 percent. The results for the various conditions are presented in Table 6.28.

**Table 6.28 Test Results for Ascending Grades**

CODE	GRADE (%)	CONDITION	NUMBER OF TESTS PERFORMED	LOCOMOTIVE PERFORMANCE
G1F	0.0 - 0.8	Forward	1	Matched
G2F	0.9 - 1.7	Forward	1	Matched
G3F	1.8 - 2.6	Forward	1	Matched
G1R	0.0 - 0.8	Reverse	1	Matched
G2R	0.9 - 1.7	Reverse	1	Matched
G3R	1.8 - 2.6	Reverse	1	Matched

The steepest grade tested on the route was 2.0 percent. For grades steeper than 2.0 percent, at Raton and Glorietta Pass, an additional locomotive and several empty cars were added to the train for braking assistance. The empty cars were also intended to add resistance on the 2.0-percent grade to simulate ascending a 2.6 percent grade.

### **6.3.7 Hand Brakes**

The hand brakes on the PKRG train were tested on the 2.0-percent grade on Raton Pass. The additional cars and locomotive were left with hand brakes released to add additional weight to simulate a 2.6 percent grade. With the train in the ascending position, the hand brakes did not prevent the train from rolling backward.

On the return trip, the test was repeated with the train in the descending position. The hand brakes held during the test. This was most likely due to the fact that the hand brakes were set while the air brakes were set. This helped the hand brakes overcome some of the friction in the system resulting in higher brake shoe forces even after the air brakes were released.

This same phenomenon was observed while performing static brake tests on the TIC. The brake shoe forces were much higher when the hand brakes were set before the release of the air brakes and stayed high even after release of the air brakes.

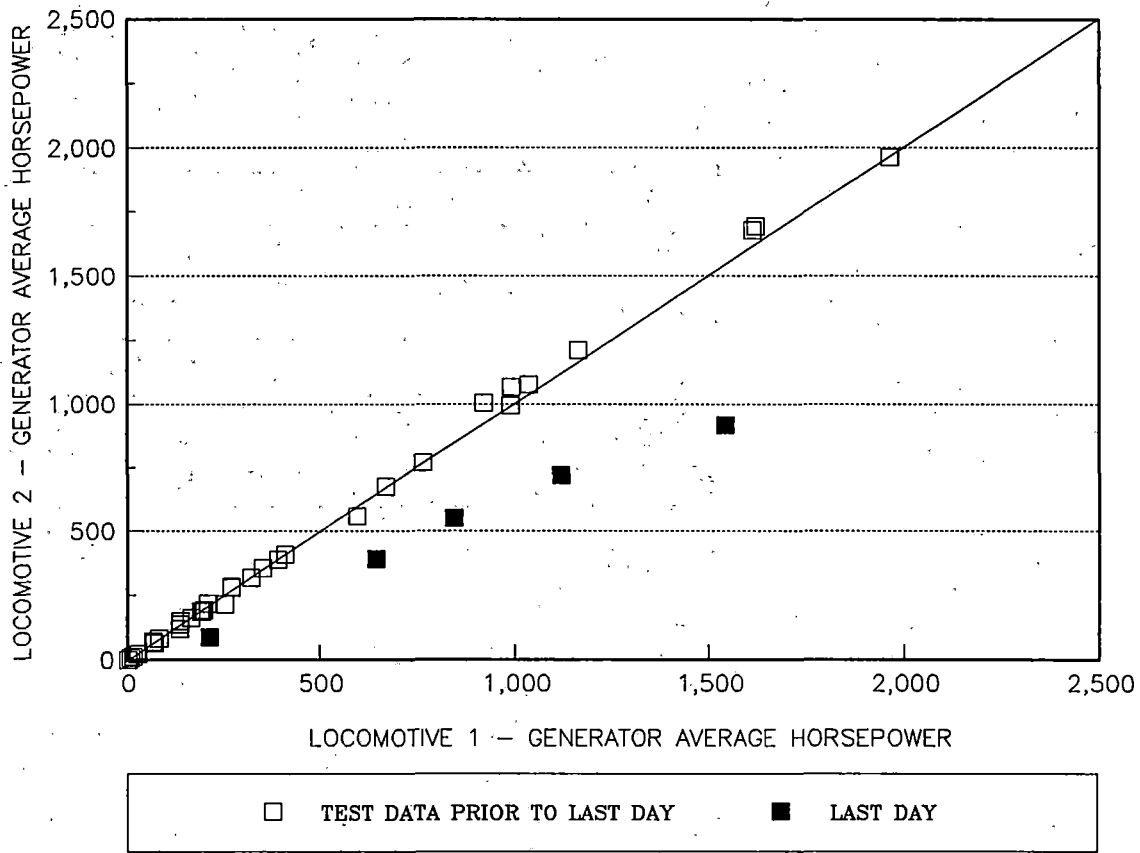
### 6.3.8 Class of Track

The train was required to operate over FRA Class 3, 4, and 5 track. Sections of track with varying class were chosen for specific tests. Table 6.29 describes the test conditions and locomotive performance.

**Table 6.29 Track Class Test Conditions and Results**

CODE	FRA TRACK CLASS	DIRECTION	SPEED (mph)	DISTANCE (mi)	NUMBER OF TESTS PERFORMED	LOCOMOTIVE PERFORMANCE
K1F	3	Forward	40	5	2	Matched
K2F	3	Forward	30	2.5	2	Matched
K3F	3	Forward	20	2.5	2	Matched
K4F	4	Forward	60	12.5	3	Not matched
K5F	4	Forward	45	6.25	3	Not matched
K6F	4	Forward	30	6.25	2	Matched
K7F	5	Forward	60	25	2	Matched
K8F	5	Forward	45	12.5	2	Matched
K9F	5	Forward	30	12.5	2	Matched
K3R	3	Reverse	N/A	N/A	1	Matched
K4R	4	Reverse	N/A	N/A	1	Matched
K5R	5	Reverse	N/A	N/A	1	Matched

All tests in which locomotive performance was unequal were performed on the last day of testing. The horsepower calculated for each locomotive was 30 percent lower for the trailing locomotive (4901). It was later determined that the locomotives were not properly connected electrically on that day. Figure 6.10 shows the calculated power during specific testing on different days.



**Figure 6.10 Locomotive Horsepower Comparison**

### 6.3.9 Starting on Ascending Grades

Tests were performed to determine the ability of the train to start on ascending grades of up to 2.6 percent. Results for the various conditions are presented in Table 6.30.

The steepest grade tested on the route was 2.0 percent.

**Table 6.30 Test Results for Starting on Ascending Grades**

CODE	GRADE (%)	DIRECTION	NUMBER OF RUNS PERFORMED	LOCOMOTIVE PERFORMANCE
P1F	0.0 - 0.8	Forward	No Data	No Data
P2F	0.9 - 1.7	Forward	1	Matched
P3F	1.8 - 2.6	Forward	1	Matched
P1R	0.0 - 0.8	Reverse	1	Matched
P2R	0.9 - 1.7	Reverse	1	Matched
P3R	1.8 - 2.6	Reverse	1	Matched



### 6.3.10 Starting on Descending Grades

Tests were performed to determine the ability of the train to start on descending grades up to 2.6 percent. Results for the various conditions are presented in Table 6.31.

**Table 6.31 Test Results for Starting on Descending Grades**

CODE	GRADE (%)	DIRECTION	NUMBER OF RUNS PERFORMED	LOCOMOTIVE PERFORMANCE
R1F	0.0 - 0.8	Forward	1	Matched
R2F	0.9 - 1.7	Forward	1	Matched
R3F	1.8 - 2.6	Forward	0	N/A
R4F	2.6	Forward	1	Matched
R1R	0.0 - 0.8	Reverse	0	N/A
R2R	0.9 - 1.7	Reverse	1	Matched
R3R	1.8 - 2.6	Reverse	1	Matched
R4R	2.6	Reverse	1	Matched

The steepest grade tested on the route was 2.0 percent. The 2.6 percent test was simulated with extra cars and a locomotive.

### 6.3.11 Missile Integration

Missile integration testing was designed to determine the vibration environment for the missile and canister while traversing FRA Class 3, 4, and 5 track at different speeds.

Table 6.32 lists the various test conditions.

**Table 6.32 Missile Integration Test Results**

CODE	FRA TRACK CLASS	SPEED (mph)	NUMBER OF TESTS PERFORMED	LOCOMOTIVE PERFORMANCE
S1F	3	10	1	Matched
S2F	3	30	2	Matched
S3F	3	40	2	Matched
S4F	4	10	1	Not matched
S5F	4	30	1	Not matched
S6F	4	50	2	Not matched
S7F	5	10	1	Matched
S8F	5	30	1	Matched
S9F	5	50	1	Matched

Each test zone was 1 mile long. The same test zone was used for all three speeds at each class. The tests in which the locomotive performance was not equal were performed on the last day of testing.

### 6.3.12 Switches

It was necessary to negotiate different types of turnouts on the route in forward and reverse directions. Table 6.33 summarizes the various tests.

No number 7 turnouts were available at TTC or on the test route.

**Table 6.33 Turnout Test Results**

CODE	TURNOUT NUMBER	DIRECTION	NUMBER OF TESTS PERFORMED
T1F	16 - 20	Forward	1
T2F	10 - 15	Forward	1
T3F	8 - 9	Forward	1
T4F	7	Forward	0
T1R	16 - 20	Reverse	1
T2R	10 - 15	Reverse	1
T3R	8 - 9	Reverse	1
T4R	7	Reverse	0

### 6.3.13 Weight of Rail

It was necessary to negotiate different weights of rail on the route in forward and reverse directions. Table 6.34 lists the results for the various test conditions.

**Table 6.34 Weight of Rail Test Conditions and Results**

CODE	RAIL WEIGHT (lbs/yard)	DIRECTION	NUMBER OF TESTS	LOCOMOTIVE PERFORMANCE
W1F	132 - 136	Forward	1	Matched
W2F	112 - 119	Forward	1	Matched
W3F	100	Forward	0	N/A
W4F	90	Forward	1	Matched
W1R	132 - 136	Reverse	1	Matched
W2R	112 - 119	Reverse	1	Matched
W3R	100	Reverse	0	N/A
W4R	90	Reverse	1	Matched

## 7.0 CONCLUSIONS

1. The Chapter XI limit for axle sum L/V was not exceeded in the Hunting Test. This, however, does not mean that the lateral acceleration limit was not exceeded. Rockwell was responsible for those measurements, so no analysis was made by AAR. The hunting criteria, intended for freight cars, is too lenient for the PKRG train. A sustained lateral acceleration of 1.0 g peak to peak, which is the Chapter XI limit would be devastating to personnel inside Launch Control or Security Cars. According to the Air Standardization Coordinating Committee Advisory Publication, *Vibration Exposure Limits*, which is referenced in the USAF WSS, the limit for eight hours of exposure to lateral vibration is 0.045 g-rms (root mean square) which equates to 0.13 g peak to peak. That is an order of magnitude lower than the Chapter XI limit.
2. The performance of the train in the various curves and spirals was difficult to quantify based on these tests. The Security Car had never been curve tested individually and the Launch Control Car curve testing was abandoned after the first 24 mph test at the direction of the USAF. The uncertainty of the Rockwell cars' performance in curving combined with the shortage of instrumented wheel sets and the observation of scrapes on the wheel flanges resulted in abandonment of 10- and 12-degree curve testing after the 24 mph run.
3. The Fuel Car was affected by the pitch and bounce perturbations. Even though the lowest minimum vertical wheel load was 15 percent, 5 percent higher than the Chapter XI limit, performance was poor.

4. The loaded Fuel Car was excited into lower center roll resonance by the twist and roll perturbations. This was amplified by the truck center spacing of 35 feet 5 inches. During individual car testing, the loaded Fuel Car performed similarly, with minimum vertical wheel loads near the 10 percent limit. The half-loaded and empty car tests on the Fuel Car yielded values which exceeded Chapter XI. This is why the car was fully loaded when tested in the PKRG train.
  
5. With the exception of the Fuel Car, the train performed within the Chapter XI criteria in twist and roll and pitch and bounce. The main reason for acceptable performance was the span bolster and truck spacing of the other cars. Twist and roll, pitch and bounce, and yaw and sway contain perturbations of a 39-foot wavelength. It would be likely that a car with 39-foot truck spacing would be most sensitive to perturbations of that wavelength or multiples of that wavelength. The spacing of the span bolsters or trucks on all other cars was between 62 and 64 feet. A wavelength of 39 feet is the most typical of excitation expected from the track. Perturbations of other wavelength are possible but less likely. Multiples of 62 to 64 feet will provide more input to this train.
  
6. None of the cars in the train exceeded Chapter XI limits for axle sum L/V in yaw and sway testing. The wheel sets were not positioned to measure truckside L/V. It was noted that the lateral perturbation amplitudes were 0.25 inches less than the Chapter XI specified 1.25 inches.

7. None of the span bolster cars had hand brake ratios which met the AAR specification of 11.0 percent or greater. The Missile Launch cars had ratios of slightly more than 10 percent. The Launch Control and Security cars had ratios of less than 9 percent. This will severely limit the grade holding ability of the train.
8. The PKRG Train negotiated FRA Class 3, 4, and 5 track, and grades of over 2.0 percent, and curves up to 10-degree without derailment during the Train Mobility Evaluation. Since there were no instrumented wheel sets and the roll gyro and accelerometer data was acquired by Rockwell and analyzed by Boeing, no other conclusion about dynamic performance can be made by the AAR.
9. Improper electrical coupling between locomotives can cause severe degradation in locomotive performance, as seen in the last day of the train mobility evaluation. The trailing locomotive put out 30 percent less horsepower than the leading locomotive.
10. The only data that was collected by the AAR during the train mobility tests was locomotive performance and the Missile Launch Car EM-1 span bolster strains. The locomotive performance data was supplied to Boeing and the span bolster strain data was supplied to Westinghouse.

## **8.0 RECOMMENDATIONS**

1. Post test modeling should be performed to reconcile measured and predicted performance during 7.3.1a testing and to examine train performance in curving, and yaw and sway.
2. The LCC single car testing should be completed to include tests in the 10- and 12-degree curves with four instrumented wheel sets to determine the curving ability of the car.
3. The Security Car should be tested to include 10- and 12-degree curving tests and high speed stability tests as well as all other Chapter XI tests to assess the track worthiness of the car.
4. The Yaw and Sway Test should be modeled with the actual amplitudes in perturbations. If the model predictions match the test results, then predictions should be made with the Chapter XI specified perturbations.
5. There has been some question regarding the similarity between the EM cars which were tested, and the Operational Models. The difference in the moments of inertia between the concrete ballast and the actual payloads should be closely examined. When the OM designs are complete, the train should be modeled with the TDM and ultimately tested.



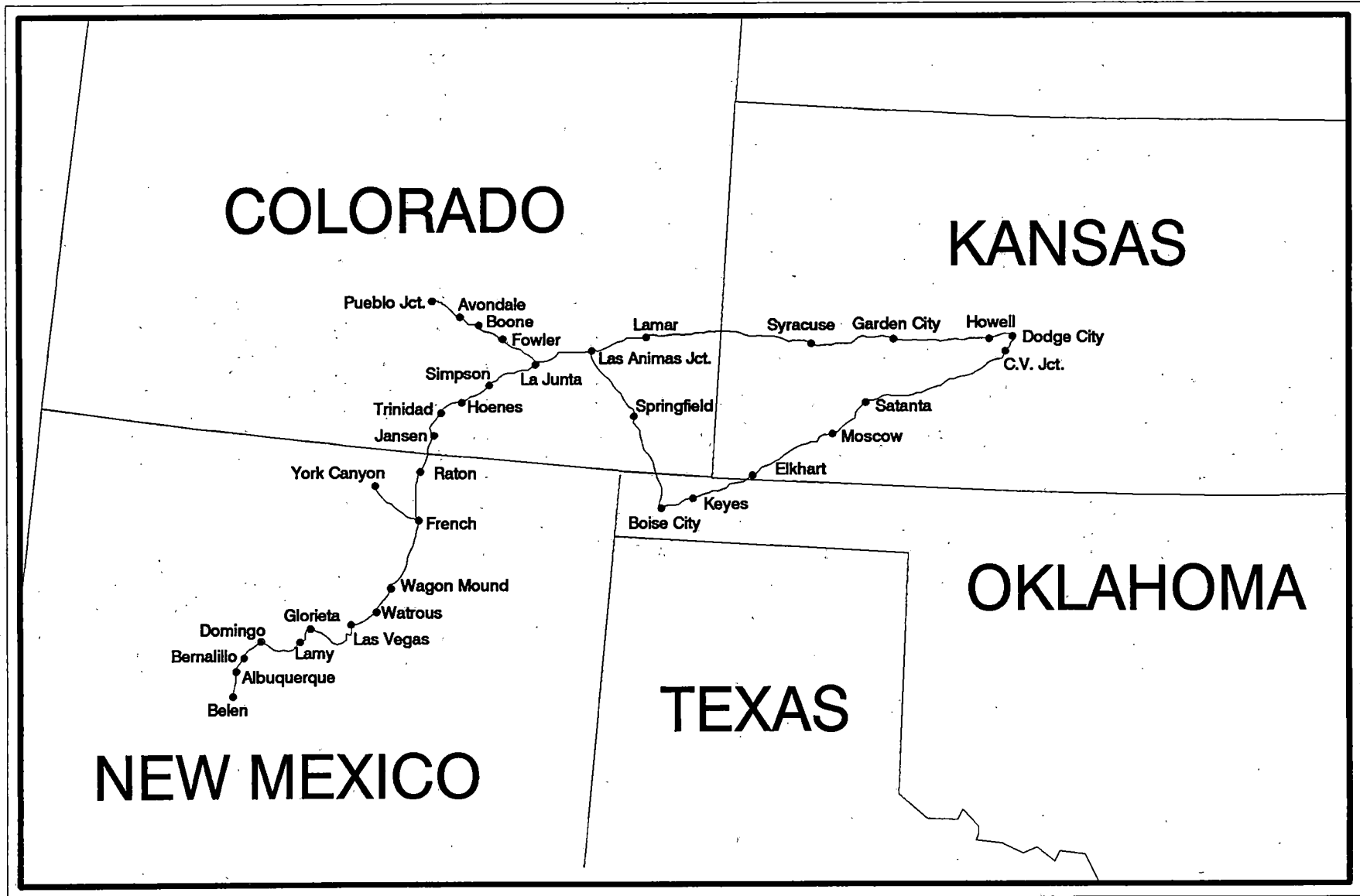
6. Some subtle changes in the design and operation of the brake system should be made. The operational mode for the PKRG train is more similar to a passenger than freight train. Helper units are sometimes required for braking a freight train in mountainous terrain. This may not be feasible for PKRG. Therefore, a train line pressure of 110 psi should be considered to increase the overall braking ratio for the train, improving stop distance and grade handling.
7. The hand brakes on the span bolster cars should be redesigned to give higher net braking ratios. The improved hand brake would improve grade holding.
8. It was apparent that AT&SF felt that a third locomotive was necessary for power and braking on steeper grades. For this reason, the USAF may consider a third locomotive for normal operation. The ability of the locomotives to hold the train on a grade would also improve. In the operational scenario, no provisions were made for setting and releasing hand brakes while on the network. It would be difficult for a train crew member to release the hand brakes on the train and still be able to climb aboard one of the locomotives.

## APPENDIX A

### 7.3.1B Test Route

# 7.3.1 B Test Route

## Atchison, Topeka, and Santa Fe Rail Network



## APPENDIX B

### Instrumented Wheel Set Measurement List

# PEACEKEEPER RAIL GARRISON TEST CONFIGURATION DATA SHEET

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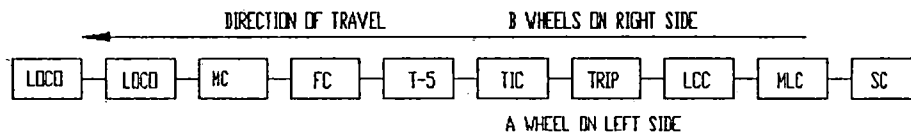
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 INSTR. ENGR./TECH. BRAIN STEWART    TEST ENGR. BIER/RALSTON    QA \_\_\_\_\_  
 SOFTWARE/VERSION \_\_\_\_\_    RECORDER I.D. NO. \_\_\_\_\_  
 SAMPLE RATE 512    ENCODER/DIGITIZER I.D. NO. \_\_\_\_\_

SET-UP FILE  
MIF\_731A

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER				SYSTEM			RECORDER		COMMENTS
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL E11 VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	NO (E11)	AI (CELL/VOLT)	ENGR. UNITS	
ALD	0	0	XDA001A	WARNER		20 ns PULSE	X= Y= Z=											1	EVENT 10 V			STRIP CHART RECORDER 8, 24, 40, 56 ALD
TSPD	1	1	R0V001A	AIR PAX		64 PULSE REV	X= Y= Z=												10 MPH VOLT			16, 32, 48, 64 SPEED
	2	2					X= Y= Z=															IRIG
FV IL	3	3	LBW 001A	IITRI	21A	CALC	X= Y= Z=							15 Hz	1		.0976	10246 KIPS/V	KIPS	1	10 KIPS MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) VERT LF
FV IR	4	4	LBW 002A	IITRI	21B	CALC	X= Y= Z=							15 Hz	1		.0976	10246 KIPS/V	KIPS	2	10 KIPS MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) VERT RT
FL IL	5	5	LBW 003A	IITRI	21A	CALC	X= Y= Z=							15 Hz	1		.0976	10246 KIPS/V	KIPS	3	5 KIPS MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) LAT LF
FL IR	6	6	LBW 004A	IITRI	21B	CALC	X= Y= Z=							15 Hz	1		.0976	10246 KIPS/V	KIPS	4	5 KIPS MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) LAT RT
LV IL	7	7	LBW 005A	IITRI	21A	CALC	X= Y= Z=							15 Hz	1		2	0.5 L/V VOLT	L/V	5	0.25 L/V MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) L/V LF
LV IR	8	8	LBW 006A	IITRI	21B	CALC	X= Y= Z=							15 Hz	1		2	0.5 L/V VOLT	L/V	6	0.25 L/V MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) L/V RT
FT I	9	9	LBW 007A	IITRI	21	CALC	X= Y= Z=			15	1000	442 k	2.9 10 kp				294	3.4 KIPS/VOLT	KIPS	7	3.33 kips MAJ DIV	FC_EMS-1, A-END LEAD AXLE (13) TORQUE

NOTES:

TOP VIEW



FILE: TRAIN01.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER			AMPLIFIER						FILTER				SYSTEM			RECORDER		COMMENTS			
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	NO (E.U.)	A1 CELL/VOLTS	ENGR. UNITS		CH NO.	SENS. CELL/DIV	
FV 2L	10	10	LBV 008A	IIRTI	22A	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	9	10 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE (15) VERT LF
FV 2R	11	11	LBV 009A	IIRTI	22B	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	10	10 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE (15) VERT RT
FL 2L	12	12	LBV 010A	IIRTI	22A	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	11	5 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE(15) LAT LF
FL 2R	13	13	LBV 011A	IIRTI	22B	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	12	5 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE (15) LAT RT
LV 2L	14	14	LBV 012A	IIRTI	22A	CALC	X= Y= Z=										15 Hz	1		2	0.5 L/V V	L/V	13	25 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE (15) L/V LF
LV 2R	15	15	LBV 013A	IIRTI	22B	CALC	X= Y= Z=										15 Hz	1		2	0.5 L/V V	L/V	14	2 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE (15) L/V RT
FT 2	16	16	LBV 014A	IIRTI	22	CALC	X= Y= Z=			15	1000	442 k	29 10 k				15 Hz	1		294	3.4 KIPS VOLT	KIPS	15	3.33 KIPS/MDIV	FC EMS-1, B-END, LEAD AXLE (15) TORQUE
FV 3L	17	17	LBV 015A	IIRTI	19A	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	17	10 KIPS/MDIV	LCC, EMS-1, LEAD TRK, LEAD AXLE, B-END (36) VERT LF
FV 3R	18	18	LBV 016A	IIRTI	19B	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	18	10 KIPS/MDIV	LCC, EMS-1 LEAD TRK, LEAD AXLE (36) B-END VERT RT
FL 3L	19	19	LBV 017A	IIRTI	19A	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS V	KIPS	19	5 KIPS/MDIV	LCC, EMS-1, LEAD TRK LEAD AXLE (36) B-END LAT RT

NOTES: FILE: TRAIN02.DWG

# PEACEKEEPER RAIL GARRISON TEST CONFIGURATION DATA SHEET

PAGE 3 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.O. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE  
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER				SYSTEM			RECORDER		COMMENTS
				MFG.	S.N.	SENS.	LDC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. E.L. VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	A0 (E.U.)	A1 (E.U./VOLT)	ENGR UNITS	
FL 3R	20	20	LBW 018A	IIRTI	19B	CALC	X= Y= Z=							15 Hz	1		0976	10246 KIPS	KIPS	20	5 KIPS/NDIV	LCC, EMS-1, LEAD TRK LEAD AXLE (36) B-END LAT RT
LV 3L	21	21	LBW 019A	IIRTI	19A	CALC	X= Y= Z=							15 Hz	1		2	0.5 LV/VOLT	LV	21	.25 LV KIPS/NDIV	LCC EMS-1 LEAD TRK, LEAD AXLE (36) B-END L/V LEFT
LV 3R	22	22	LBW 020A	IIRTI	19B	CALC	X= Y= Z=							15 Hz	1		2	0.5 LV/VOLT	LV	22	25 LV KIPS/NDIV	LCC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END L/V RT
FT 3	23	23	LBW 021A	IIRTI	19	CALC	X= Y= Z=		15	1000	442 k	29v 10 kp		15 Hz	1		294	34 KIPS/V	KIPS	23	333 KIPS/NDIV	LCC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END TORQUE
FV 4L	24	24	LBW 022A	IIRTI	17A	CALC	X= Y= Z=							15 Hz	1		0976	10246 KIPS/V	KIPS	25	10 KIPS/NDIV	MLC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END VERT LF
FV 4R	25	25	LBW 023A	IIRTI	17B	CALC	X= Y= Z=							15 Hz	1		0976	10246 KIPS/V	KIPS	26	10 KIPS/NDIV	MLC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END VERT RT
FL 4L	26	26	LBW 024A	IIRTI	17A	CALC	X= Y= Z=							15 Hz	1		0976	10246 KIPS/V	KIPS	27	10 KIPS/NDIV	MLC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END LAT RT
FL 4R	27	27	LBW 025A	IIRTI	17B	CALC	X= Y= Z=							15 Hz	1		0976	10246 KIPS/V	KIPS	28	10 KIPS/NDIV	MLC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END LAT RT
LV 4L	28	28	LBW 026A	IIRTI	17A	CALC	X= Y= Z=							15 Hz	1		2	0.5 LV/VOLT	LV	29	25 LV KIPS/NDIV	MLC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END L/V LF
LV 4R	29	29	LBW 027A	IIRTI	17B	CALC	X= Y= Z=							15 Hz	1		2	0.5 LV/VOLT	LV	30	25 LV KIPS/NDIV	MLC, EMS-1, LEAD TRK LEAD AXLE, (36) B-END L/V RT

NOTES:

FILE: TRIP03.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 4 OF \_\_\_\_\_

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 SOFTWARE/VERSION \_\_\_\_\_      RECORDER I.D. NO. \_\_\_\_\_      SET-UP FILE \_\_\_\_\_  
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO. \_\_\_\_\_

INST INIT	DAS CH	PP CH	MEAS: CODE	TRANSDUCER				AMPLIFIER					FILTER				SYSTEM			RECORDER		COMMENTS
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	ENC- L/R	GAIN FIL/VAR	R-CAL RES.	CAL ELL & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	AO CELL	AI (CELL/VOLT)	ENGR UNITS	
FT 4	30		LBV 028A	IIRTI	17	CALC	X= Y= Z=							15 Hz	1		1499	6.67 KIPS /V	KIPS	31	333 KIPS/MDIV	MLC, ENS-L LEAD TRK, LEAD AXLE(40) B-END TORQUE
FV SL	31		LBV 029A	ENSCO	2A	CALC	X= Y= Z=							15 Hz	1		J33333	7.5 KIPS /V	KIPS	33	75 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END VERT LF
FV SR	32		LBV 030A	ENSCO	2B	CALC	X= Y= Z=							15 Hz			J33333	7.5 KIPS /V	KIPS	34	75 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END VERT RT
FL SL	33		LBV 031A	ENSCO	2A	CALC	X= Y= Z=							15 Hz			J66666	6 KIPS /V	KIPS	35	6 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END LAT LF
FL SR	34		LBV 032A	ENSCO	2B	CALC	X= Y= Z=							15 Hz			J66666	6 KIPS /V	KIPS	36	6 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END LAT RT
LV SL	35		LBV 033A	ENSCO	2A	CALC	X= Y= Z=							15 Hz			4 V LV	.25 /V	LV	30	.25 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END L/V LF
LV SR	36		LBV 034A	ENSCO	2B	CALC	X= Y= Z=							15 Hz			5	.25 /V	LV	38	.25 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END L/V RT
FT S	37		LBV 035A	ENSCO	2	CALC	X= Y= Z=							15 Hz			5	2 KIPS /V	KIPS	39	.25 KIPS/MDIV	MLC, ENS-L TRAIL TRK, LEAD AXLE, (42) B-END TORQUE
FV 6L	38		LBV 036A	IITRI	18A	CALC	X= Y= Z=							15 Hz			.0976	10.246 KIPS /V	KIPS	41	10 KIPS/MDIV	MLC, ENS-L LEAD TRK, LEAD AXLE(44) A-END VERT LF
FV 6R	39		LBV 037A	IITRI	18B	CALC	X= Y= Z=							15 Hz			.0976	10.246 KIPS /V	KIPS	42	10 KIPS/MDIV	MLC, ENS-L LEAD TRK, LEAD AXLE(44) A-END VERT RT

NOTES:

FILE: TRAIN04.DWG



# PEACEKEEPER RAIL GARRISON TEST CONFIGURATION DATA SHEET

PAGE 5 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)

DATE W.D. 87593 LOC. T-5

INSTR. ENGR./TECH. BRIAN STEWART

TEST ENGR. BIER/RALSTON QA     

SOFTWARE/VERSION      RECORDER I.D. NO.     

SET-UP FILE

SAMPLE RATE 512

ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER			SYSTEM			RECORDER		COMMENTS			
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ERR. & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	A0 (EU)	A1 (EU/VOLT)	ENGR. UNITS		CH NO.	SENS. (EU/DIV)	
FL 6L	40		LBV 038A	IITRI	18A	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS /v	KIPS	43	10 KIPS/MDIV	M/C, EMS-1 LEAD TRK LEAD AXLE(44) A-END LAT LF
FL 6R	41		LBV 039A	IITRI	18B	CALC	X= Y= Z=										15 Hz	1		0976	10.246 KIPS /v	KIPS	44	10 KIPS/MDIV	M/C, EMS-1 LEAD TRK LEAD AXLE(44) A-END LAT RT
LV 6L	42		LBV 040A	IITRI	18A	CALC	X= Y= Z=										15 Hz	1		2	0.5 L/V /v	L/V	45	25 L/V KIPS/MDIV	M/C, EMS-1 LEAD TRK LEAD AXLE(44) A-END L/V LT
LV 6R	43		LBV 041A	IITRI	18B	CALC	X= Y= Z=										15 Hz	1		2	0.5 L/V /v	L/V	46	25 L/V KIPS/MDIV	M/C, EMS-1 LEAD TRK LEAD AXLE(44) A-END L/V RT
FT 6	44		LBV 042A	IITRI	1B	CALC	X= Y= Z=										15 Hz	1		1499	6.67 KIPS /v	KIPS	47	333 KIPS/MDIV	M/C, EMS-1 LEAD TRK LEAD AXLE(44) A-END
FV 7L	45		LBV 043A	ENSCO	1A	CALC	X= Y= Z=										15 Hz	1		133	7.5 KIPS /v	KIPS	49	7.5 KIPS/MDIV	M/C, EMS-1 TRAIL TRK LEAD AXLE(46) A-END VERT LF
FV 7R	46		LBV 044A	ENSCO	1B	CALC	X= Y= Z=										15 Hz	1		133	7.5 KIPS /v	KIPS	50	7.5 KIPS/MDIV	M/C, EMS-1 TRAIL TRK LEAD AXLE(46) A-END VERT RT
FL 7L	47		LBV 045A	ENSCO	1A	CALC	X= Y= Z=										15 Hz	1		166	6 KIPS /v	KIPS	51	6 KIPS/MDIV	M/C, EMS-1 TRAIL TRK LEAD AXLE(46) A-END LAT LF
FL 7R	48		LBV 046A	ENSCO	1B	CALC	X= Y= Z=										15 Hz	1		166	6 KIPS /v	KIPS	52	6 KIPS/MDIV	M/C, EMS-1 TRAIL TRK LEAD AXLE(46) A-END LAT RT
LV 7L	49		LBV 047A	ENSCO	1A	CALC	X= Y= Z=										15 Hz	1		4	25 KIPS /v	L/V	53	25 L/V KIPS/MDIV	M/C, EMS-1 TRAIL TRK LEAD AXLE(46) A-END L/V LF

NOTES:

FILE: TRAIN05.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 6 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)    DATE      W.O.87593    LOC. T-5  
 INSTR. ENGR./TECH: BRIAN STEWART    TEST ENGR. BIER/RALSTON    QA       
 SOFTWARE/VERSION         RECORDER I.D. NO.         SET-UP FILE       
 SAMPLE RATE 512    ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER			SYSTEM			RECORDER		COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NL	EXC- L/R	GAIN FIX/VAR	R-CAL RES	CAL ELL & VOLTS	S/N CAL VOID DATE	NL	FREQ	GAIN	CAL VOID DATE	AO (EU)	A1 (CELL/VOLT)		ENGR UNITS
LV 7R	50			ENSCO	1B	CALC	X= Y= Z=							15 Hz	1		4	25 LV /VOLT		54		MLC, EMS-1 TRAIL TRK LEAD AXLE(46) A-END L/V RT
FT 7	51			ENSCO	1	CALC	X= Y= Z=							15 Hz	1		5	2 KIPS /VOLT		55		MLC, EMS-1 TRAIL TRK LEAD AXLE(46) A-END TORQUE
FV 8L	52			IITRI	20A	CALC	X= Y= Z=							15 Hz	1		097599	10.246 KIPS /V	KIPS	57		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END VERT LF
FV 8R	53			IITRI	20B	CALC	X= Y= Z=							15 Hz	1		097599	10.246 KIPS /V	KIPS	58		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END VERT RT
FL 8L	54			IITRI	20A	CALC	X= Y= Z=							15 Hz	1		097599	10.246 KIPS /V	KIPS	59		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END LAT LF
FL 8R	55			IITRI	20B	CALC	X= Y= Z=							15 Hz	1		097599	10.246 KIPS /V	KIPS	60		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END LAT RT
LV 8L	56			IITRI	20A	CALC	X= Y= Z=							15 Hz	1		2	0.5 LV /V	L/V	61		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END L/V LF
LV 8R	57			IITRI	20B	CALC	X= Y= Z=							15 Hz	1		2	0.5 LV /V	L/V	62		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END L/V RT
FT 8	58			IITRI	20	CALC	X= Y= Z=		15	1000	442 K	29 V 10 kps		15 Hz			149925	3.4 KIPS /V	KIPS	63		SC, EMS-1 LEAD TRK LEAD AXLE(48) A-END TORQUE
V17A	59		V17AA	IITRI	17A	RAV	X= Y= Z=		25V	1000 FIX		2256 V		200 Hz				1	VOLT			VERT GAGE A ON A WHEEL OF SET 17

NOTES:

FILE: TRAIN06.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 7 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER			SYSTEM	RECORDER  SENS. (G.U./DIV.)	COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.				GAIN
V17A	60			IITRI	VS 17	RAW	X= Y= Z=			25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE B ON A WHEEL OF SET 17
V17C 7	61			IITRI	VS 17	RAW	X= Y= Z=			25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE C ON A WHEEL OF SET 17
L17A	62			IITRI	VS 17	RAW	X= Y= Z=			20 V	1000 FIX	1000 K	2374 V			200 Hz				LAT GAGE A ON A WHEEL OF SET 17
L17B	63			IITRI	VS 17	RAW	X= Y= Z=			20 V	1000 FIX	1000 K	2374 V			200 Hz				LAT GAGE B ON A WHEEL OF SET 17
V17	64			IITRI	VS 17	RAW	X= Y= Z=			20 V	1000 FIX	1000 K	2260 V			200 Hz				VERT GAGE A ON B WHEEL OF SET 17
V17	65			IITRI	VS 17	RAW	X= Y= Z=			25 V	1000 FIX	1000 K	2259 V			200 Hz				VERT GAGE B ON B WHEEL OF SET 17
V17	66			IITRI	VS 17	RAW	X= Y= Z=			25 V	1000 FIX	1000 K	2261 V			200 Hz				VERT GAGE C ON B WHEEL OF SET 17
L17	67			IITRI	VS 17	RAW	X= Y= Z=			20 V	1000 FIX	511 K	2374 V			200 Hz				LAT GAGE A ON B WHEEL OF SET 17
L17	68			IITRI	VS 17	RAW	X= Y= Z=			20 V	1000 FIX	511 K	3275 V			200 Hz				LAT GAGE B ON B WHEEL OF SET 17
P17A	69		P17AA	IITRI	VS 17	RAW	X= Y= Z=									200 Hz				POS A WHEEL SET 17

NOTES:

FILE: TRAIN07.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 8 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER			SYSTEM	RECORDER <small>SENS. (CELL/DIV)</small>	COMMENTS
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL & VOLTS	S.N. CAL VOID DATE	NEI	FREQ			
P17B	70		P17BA	IITRI	VS 17	RAW	X= Y= Z=												POS B WHEEL SET 17
V18A	71		V18AA	IITRI	WS 18	RAW	X= Y= Z=		25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE A ON A WHEEL OF SET 18
V18B	72		V18AB	IITRI	WS 18	RAW	X= Y= Z=		25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE B ON A WHEEL OF SET 18
V18C	73		V18AC	IITRI	WS 18	RAW	X= Y= Z=		25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE C ON A WHEEL OF SET 18
L18A	74		L18AA	IITRI	WS 18	RAW	X= Y= Z=		20 V	1000 FIX	511 K	2374 V			200 Hz				LAT GAGE A ON A WHEEL OF SET 18
L18B	75		L18AB	IITRI	WS 18	RAW	X= Y= Z=		20 V	1000 FIX	511 K	2374 V			200 Hz				LAT GAGE B ON A WHEEL OF SET 18
V18	76		V18BA	IITRI	WS 18	RAW	X= Y= Z=		25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE A ON B WHEEL OF SET 18
V18B	77		V18BB	IITRI	WS 18	RAW	X= Y= Z=		25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE B ON B WHEEL OF SET 18
V18C	78		V18BC	IITRI	WS 18	RAW	X= Y= Z=		25 V	1000 FIX	1000 K	2258 V			200 Hz				VERT GAGE C ON B WHEEL OF SET 18
L18	79		L18BA	IITRI	WS 18	RAW	X= Y= Z=		20 V	1000 FIX	511 K	2374 V			200 Hz				LAT GAGE A ON B WHEEL OF SET 18

NOTES: FILE: TRAIN08.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

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TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.O. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DASPP CHCH	MEAS. CODE	TRANSDUCER					AMPLIFIER					FILTER			SYSTEM	RECORDER <small>SENS. (E.U./DIV.)</small>	COMMENTS			
			MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL. & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.				GAIN	CAL VOID DATE	
LB18	80	L18BB	IITRI	WS 17	RAW	X= Y= Z=					20 V	1000 FIX	511 K	2374 V			200 Hz				LAT GAGE B ON B WHEEL OF SET 18
P18A	81	P18AA	IITRI	WS 18	RAW	X= Y= Z=											200 Hz				POS A WHEELSET 18
P18B	82	P18BA	IITRI	WS 18	RAW	X= Y= Z=											200 Hz				PULSE B WHEELSET 18
V19A	83	V19AA	IITRI	WS 19	RAW	X= Y= Z=				15 V	1000 FIX	681 K	1980 V				120 Hz				VERT GAGE A ON A WHEEL OF SET 19
V19B	84	V19AB	IITRI	WS 19	RAW	X= Y= Z=				15 V	1000 FIX	681 K	1980 V				120 Hz				VERT GAGE B ON A WHEEL OF SET 19
V19C	85	V19AC	IITRI	WS 19	RAW	X= Y= Z=				15 V	1000 FIX	681 K	1980 V				120 Hz				VERT GAGE C ON A WHEEL OF SET 19
L19A	86	L19AA	IITRI	WS 19	RAW	X= Y= Z=				15 V	200 FIX	118 K	1535				120 Hz				LAT GAGE A ON A WHEEL OF SET 19
L19B	87	L19AB	IITRI	WS 19	RAW	X= Y= Z=				15 V	200 FIX	118 K	1535				120 Hz				LAT GAGE B ON A WHEEL OF SET 19
V19	88	V19BA	IITRI	WS 19	RAW	X= Y= Z=				15 V	1000 FIX	681 K	1980				120 Hz				VERT GAGE A ON B WHEEL OF SET 19
VB19	89	V19BB	IITRI	WS 19	RAW	X= Y= Z=				15 V	1000 FIX	681 K	1980				120 Hz				VERT GAGE B ON B WHEEL OF SET 19

NOTES:

FILE: TRAIN09.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

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TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.O. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER				SYSTEM	RECORDER	COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. EIL & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN				CAL VOID DATE
VC19	90		V19BC	IITRI	VS 19	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1980 V			120 Hz					VERT GAGE C ON B WHEEL OF SET 19
LAI9	91		L19BA	IITRI	WS19	RAW	X= Y= Z=			15 V	200 FIX	118 K	1535 V			120 Hz					LAT GAGE A ON B WHEEL OF SET 19
LB19	92		L19BB	IITRI	WS19	RAW	X= Y= Z=			15 V	200 FIX	118 K	1535 V			120 Hz					LAT GAGE B ON B WHEEL OF SET 19
P19A	93		P19AA	IITRI	VS 19	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1095 V			120 Hz					POS A WHEELSET 19
P19B	94		P19BA	IITRI	VS 19	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1095 V			120 Hz					POS B WHEELSET 19
V20A	95		V20AA	IITRI	VS 20	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1095 V			120 Hz					VERT GAGE A ON A WHEEL OF SET 20
V20B	96		V20AB	IITRI	VS 19	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1095 V			120 Hz					VERT GAGE B ON A WHEEL OF SET 20
V20C	97		V20AC	IITRI	VS 19	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1095 V			120 Hz					VERT GAGE C ON A WHEEL OF SET 20
L20A	98		L20AA	IITRI	VS 19	RAW	X= Y= Z=			15 V	200 FIX	118 K	1535 V			120 Hz					LAT GAGE A ON A WHEEL OF SET 20
L20B	99		L20AB	IITRI	VS 19	RAW	X= Y= Z=			15 V	200 FIX	118 K	1535 V			120 Hz					LAT GAGE B ON A WHEEL OF SET 20

NOTES:

FILE: TRAINIDWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 11 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.O. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER			SYSTEM	RECORDER <small>SENS. CELL/DIV</small>	COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL & VOLTS	S.N. CAL VOID DATE	NO.				FREQ.
VA20	100		V20BA	IITRI	VS 20	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980			120 Hz			VERT GAGE A ON B WHEEL OF SET 20
VB20	101		V20BB	IITRI	VS 20	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980			120 Hz			VERT GAGE B ON B WHEEL OF SET 20
VC20	102		V20BC	IITRI	VS 20	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980			120 Hz			VERT GAGE C ON B WHEEL OF SET 20
LA20	103		L20BA	IITRI	VS 20	RAW	X= Y= Z=			15 V	200 FIX	118 K	1.535			120 Hz			LAT GAGE A ON B WHEEL OF SET 20
LB20	104		L20BB	IITRI	VS 20	RAW	X= Y= Z=			15 V	200 FIX	118 K	1.535			120 Hz			LAT GAGE B ON B. WHEEL OF SET 20
P20A	105		P20AA	IITRI	VS 20	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1.095			120 Hz			POS A WHEELSET 20
P20B	106		P20BA	IITRI	VS 20	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1.095			120 Hz			POS B WHEELSET 20
V21A	107		V21AA	IITRI	VS 21	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980			120 Hz			VERT GAGE A ON A WHEEL OF SET 21
V21B	108		V21AB	IITRI	VS 21	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980			120 Hz			VERT GAGE B ON A WHEEL OF SET 21
V21C	109		V21AC	IITRI	VS 21	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980			120 Hz			VERT GAGE C ON A WHEEL OF SET 21

NOTES: FILE: TRAIN1.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 12 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE      W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA       
 SOFTWARE/VERSION           RECORDER I.D. NO.           SET-UP FILE       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER				SYSTEM	RECORDER	COMMENTS		
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN				CAL VOID DATE	SENS. GAIN/DIV
L21A	110		L21AA	IITRI	VS 21	RAV	X= Y= Z=			15 V	200 FIX	118 K	1535 V				120 Hz					LAT GAGE A ON A WHEEL OF SET 21
L21B	111		L21AB	IITRI	VS 21	RAV	X= Y= Z=			15 V	200 FIX	118 K	1535 V				120 Hz					LAT GAGE B ON A WHEEL OF SET 21
VA21	112		V21BA	IITRI	VS 21	RAV	X= Y= Z=			15 V	1000 FIX	681 K	1980 V				120 Hz					VERT GAGE A ON B WHEEL OF SET 21
VB21	113		V21BB	IITRI	VS 21	RAV	X= Y= Z=			15 V	1000 FIX	681 K	1980 V				120 Hz					VERT GAGE B ON B WHEEL OF SET 21
VC21	114		V21BC	IITRI	VS 21	RAV	X= Y= Z=			15 V	1000 FIX	681 K	1980 V				120 Hz					VERT GAGE C ON B WHEEL OF SET 21
LA21	115		L21BA	IITRI	VS 21	RAV	X= Y= Z=			15 V	200 FIX	118 K	1535 V				120 Hz					LAT GAGE A ON B WHEEL OF SET 21
LB21	116		L21BB	IITRI	VS 21	RAV	X= Y= Z=			15 V	200 FIX	118 K	1535 V				120 Hz					LAT GAGE B ON B WHEEL OF SET 21
P21A	117		P21AA	IITRI	VS 21	RAV	X= Y= Z=			15 V	1000 FIX	815 K	1095 V				120 Hz					PULSE A WHEELSET 21
P21B	118		P21BA	IITRI	VS 21	RAV	X= Y= Z=			15 V	1000 FIX	815 K	1095 V				120 Hz					PULSE B WHEELSET 21
V22A	119		V22AA	IITRI	VS 22	RAV	X= Y= Z=			15 V	1000 FIX	815 K	1095 V				120 Hz					VERT GAGE A ON A WHEEL OF SET 22

NOTES:

FILE: TRAIN2.DWG



PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 13 OF     

TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE            W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA             
 SOFTWARE/VERSION                                 RECORDER I.D. NO.                                 SET-UP FILE  
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.                           

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER				SYSTEM	RECORDER	COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN				CAL VOID DATE
V22B	120		V22AB	IITRI	VS 22	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980 V				120 Hz				VERT GAGE B ON A WHEEL OF SET 22
V22C	121		V22AC	IITRI	VS 22	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980 V				120 Hz				VERT GAGE C ON A WHEEL OF SET 22
L22A	122		L22AA	IITRI	VS 22	RAW	X= Y= Z=			15 V	200 FIX	118. K	1.535 V				120 Hz				LAT GAGE A ON A WHEEL OF SET 22
L22B	123		L22AB	IITRI	VS 22	RAW	X= Y= Z=			15 V	200 FIX	118. K	1.535 V				120 Hz				LAT GAGE B ON A WHEEL OF SET 22
VA22	124		V22BA	IITRI	VS 22	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980 V				120 Hz				VERT GAGE A ON B WHEEL OF SET 22
VB22	125		V22BB	IITRI	VS 22	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980 V				120 Hz				VERT GAGE B ON B WHEEL OF SET 22
VC22	126		V22BC	IITRI	VS 22	RAW	X= Y= Z=			15 V	1000 FIX	681 K	1.980 V				120 Hz				VERT GAGE C ON B WHEEL OF SET 22
LA22	127		L22BA	IITRI	VS 22	RAW	X= Y= Z=			15 V	200 FIX	118 K	1.535 V				120 Hz				LAT GAGE A ON B WHEEL OF SET 22
LB22	128		L22BB	IITRI	VS 22	RAW	X= Y= Z=			15 V	200 FIX	118 K	1.535 V				120 Hz				LAT GAGE B ON B WHEEL OF SET 22
P22A	129		P22AA	IITRI	VS 22	RAW	X= Y= Z=			15 V	1000 FIX	815 K	1.095 V				120 Hz				PDS A WHEELSET 22

NOTES: FILE: TRAIN3.DWG



PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

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TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE                      W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA                       
 SOFTWARE/VERSION                           RECORDER I.D. NO.                           SET-UP FILE                       
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO.                     

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER			SYSTEM	RECORDER  SENS. (CELL/DIV.)	COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL VOLTS	S.N. CAL VOID DATE	NO.				FREQ.
LB1B	140		LB1B	ENSCO	VS 1	RAW	X= Y= Z=			1100 V	VAR	87150 K	413 V						LAT GAGE B ON B WHEEL OF SET 1
PAVA	141		PAVA	ENSCO	VS 1	RAW	X= Y= Z=			1100 V	VAR								WHEEL 1 PAVA PULSE
PAVB	142		PAVB	ENSCO	VS 1	RAW	X= Y= Z=			1100 V	VAR								WHEELSET 1 PAVB PULSE
VA2A	143		VA2A	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	249 K	3.31 V						VERT GAGE A ON WHEEL A OF SET 2
VB2A	144		VB2A	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	249 K	3.31 V						VERT GAGE B ON WHEEL A OF SET 2
VC2A	145		VC2A	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	849.65 K	8.85 V						VERT GAGE C ON WHEEL A OF SET 2
LA2A	146		LA2A	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	87150 K	4.05 V						LAT GAGE A ON WHEEL A OF SET 2
LB2A	147		LB2A	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	87150 K	4.05 V						LAT GAGE B ON WHEEL A OF SET 2
VA2B	148		VA2B	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	249 K	3.33 V						VERT GAGE A ON B WHEEL OF SET 2
VB2B	149		VB2B	ENSCO	VS 2	RAW	X= Y= Z=			1100 V	VAR	249 K	3.33 V						VERT GAGE B ON B WHEEL OF SET 2

NOTES:

FILE: TRAIN5.DWG

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

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TEST NAME TRAIN DYNAMICS TEST (IWS)      DATE W.D. 87593      LOC. T-5  
 INSTR. ENGR./TECH. BRIAN STEWART      TEST ENGR. BIER/RALSTON      QA \_\_\_\_\_  
 SOFTWARE/VERSION \_\_\_\_\_      RECORDER I.D. NO. \_\_\_\_\_      SET-UP FILE \_\_\_\_\_  
 SAMPLE RATE 512      ENCODER/DIGITIZER I.D. NO. \_\_\_\_\_

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER				SYSTEM	RECORDER  SENS. CELL/DIV	COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. ELL VOLTS	S.N. CAL VOID DATE	NO.	FREQ.				GAIN
VC2B	150		VC2B	ENSCO	VS 1	RAW	X= Y= Z=			1100 V	VAR	349.65 K	8.95 V							VERT GAGE C ON B WHEEL OF SET 2
LA2B	151		LA2B	ENSCO	VS 1	RAW	X= Y= Z=			1100 V	VAR	87150 K	4.03 V							LAT GAGE A ON WHEEL B OF SET 2
LB2B	152		LB2B	ENSCO	VS 1	RAW	X= Y= Z=			1100 V	VAR	87150 K	4.03 V							LAT GAGE B OF B WHEEL OF SET 2
PBVA	153		PBVA	ENSCO	VS 2	RAW	X= Y= Z=			—	VAR		—							WHEELSET 2 PBVA PULSE
PBVB	154		PBVB	ENSCO	VS 2	RAW	X= Y= Z=			—	VAR		—							WHEELSET 2 PBVB PULSE
AY1	155		AY1	Endevco 2262	13K92	11.40 mv/G	X= Y= Z=			10 V	200 FIX							0.439 Gs/V		ACCEL LAT WHEEL CAP LB, A-SIDE TIC
AZ1	156		AZ1	Endevco 2262	BP19	11.71 mv/G	X= Y= Z=			10 V	200 FIX							0.427 Gs/V		ACCEL VERT, WHEEL CAP LB, A-SIDE TIC
AY2	157		AY2	Endevco 7290	AC55	199.0 mv/G	X= Y= Z=			15 V	2 FIX							2.513 Gs/V		ACCEL, LAT, A-END C/L CARBODY TIC
AZ2	158		AZ2	Endevco 7290	AE50	196.9 mv/G	X= Y= Z=			15 V	2 FIX							2.538 Gs/V		ACCEL VERT, A-END C/L CARBODY, TIC
AY3	159		AY3	Endevco 7290	AE37	198.3 mv/G	X= Y= Z=			15 V	2 FIX							2.519 Gs/V		ACCEL, VERT, B-END, C/L CARBODY, TIC

NOTES:

FILE: TRAIN16.DWG

## APPENDIX C

### Roll Gyro Measurement List

PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 1 OF 2

TEST NAME 7.3.1 "A"  
INSTR. ENGR./TECH. STARKWEATHER  
SOFTWARE/VERSION N/A  
SAMPLE RATE N/A

DATE 10-29-90 W.O. 87593 LOC. ITC  
TEST ENGR. \_\_\_\_\_ QA \_\_\_\_\_

RECORDER I.D. NO. N/A SET-UP FILE N/A  
ENCODER/DIGITIZER I.D. NO. N/A

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER				SYSTEM			RECORDER		COMMENTS			
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC. L/R	GAIN FIX/VAR	R-CAL RES.	CAL. E.U. & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	A0 (E.U.)	A1 (E.U./VOLT)	ENGR. UNITS		CH NO.	SENS. (E.U./DIV.)	
		1	DFD28A	HUMPHREY	112	20DEG/SEC	X= Y= Z=		1	10	1					1	15	1			4.031	DEG/ SEC			ROLL RATE A-END "GY" MAINTENANCE CAR
			DFD01A	TTC			X= Y= Z=		1												1.008	DEG			ROLL ANGLE A-END HC GY1
			DFD42A	HUMPHREY	113	20 DEG / SEC	X= Y= Z=		2	10	1					2	15	1			4.002	DEG/ SEC			ROLL RATE B-END HC GY2
			DFD43A	TTC			X= Y= Z=		2												1.000	DEG			ROLL ANGLE B-END GY2
			DGF029A	HUMPHREY	116	20 DEG / SEC	X= Y= Z=		3	10	1					3	15	1			4.023	DEG/ SEC			ROLL RATE A-END FUEL CAR GY3
			DGF013A	TTC			X= Y= Z=		3												1.0057	DEG			ROLL ANGLE A-END FUEL CAR GY3
			DGF030A	HUMPHREY	114	20 DEG / SEC	X= Y= Z=		4	10	1					4	15	1			4.027	DEG/ SEC			ROLL RATE B-END FUEL CAR GY4
			DGF003A	TTC			X= Y= Z=		4												1.007	DEG			ROLL ANGLE B-END FUEL CAR
			DDF024A	HUMPHREY	115	20 DEG / SEC	X= Y= Z=		5	10						5	15	1			4.024	DEG/ SEC			ROLL RATE A-END SC EMS-2 GY5
			DDF004				X= Y= Z=		5												1.006	DEG			ROLL ANGLE A-END SC EMS-2 GY5

NOTES:

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# PEACEKEEPER RAIL GARRISON TEST CONFIGURATION DATA SHEET

PAGE 2 OF 2

TEST NAME 7.3.1 "A"

DATE 10-29-90 W.D. 87593 LOC. TTC

INSTR. ENGR./TECH. STARKWEATHER

TEST ENGR. \_\_\_\_\_ QA \_\_\_\_\_

SOFTWARE/VERSION N/A

RECORDER I.D. NO. N/A

SET-UP FILE \_\_\_\_\_

SAMPLE RATE N/A

ENCODER/DIGITIZER I.D. NO. N/A

N/A

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER			AMPLIFIER						FILTER			SYSTEM			RECORDER		COMMENTS	
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH. NO.	EXC. L/R	GAIN FIX/VAR	R-CAL RES.	CAL. EUI & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	A0 (EUI)	A1 (EUI/VOLTS)		ENGR. UNITS
			DAF022A	HUMPHREY	117	20DEG/SEC	X=											3.986	DEG/SEC			ROLL RATE A-END LCC GY6
			DAF006A	TTC			Y=											.9966	DEG			ROLL ANGLE A-END LCC GY6
			DCF034A	HUMPHREY	120	20 DEG / SEC	Z=											4.030	DEG/SEC			ROLL RATE B-END MLC EMS-1 GY7
			DCF018A	TTC			X=											1.007	DEG			ROLL ANGLE B-END MLC EMS-1 GY7
			DCF035A	HUMPHREY	119	20 DEG / SEC	Y=											4.018	DEG/SEC			ROLL RATE A-END MLC EMS-1 GY8
			DCF011A	TTC			Z=											1.004	DEG			ROLL ANGLE A-END MLC EMS-1 GY8
			DEF037A	HUMPHREY	118	20 DEG / SEC	X=											4.036	DEG/SEC			ROLL RATE B-END SC EMS-1 GY9
			DEF036A	TTC			Y=											1.009	DEG			ROLL ANGLE B-END SC EMS-1 GY9
							Z=															
							X=															
							Y=															
							Z=															

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**APPENDIX D**

**Wayside Measurement List**



# PEACEKEEPER RAIL GARRISON TEST CONFIGURATION DATA SHEET

PAGE 1 OF 2

TEST NAME 7.31A PHASE 1      DATE 1-3-91    W.D. 87593    LOC. WORM LOOP  
 INSTR. ENGR./TECH. GRAFF/GRIEGO      TEST ENGR. BRABB      QA \_\_\_\_\_  
 SOFTWARE/VERSION xGNRI AQ8B      RECORDER I.D. NO. \_\_\_\_\_      SET-UP FILE \_\_\_\_\_  
 SAMPLE RATE 500      ENCODER/DIGITIZER I.D. NO. \_\_\_\_\_

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER				SYSTEM			RECORDER		COMMENTS		
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. EU. & VOLTS	S.N. CAL VOID DATE	NO.	FREQ	GAIN	CAL VOID DATE	A0 (E.U.)	A1 (E.U./VOLT)	ENGR. UNITS	CH NO.		SENS. (E.U./DIV.)	
VIV1	0			HI TEC	HBWS	GF = 2.05	X= Y= Z=		1	20V R	500 FIX	499 K	31.3K 3.536		1	120 Hz	1			8.839	KILO LBS	1	5K	INSIDE RAIL VERTICAL FORCE	1
LIV1	1			HI TEC	HBW	GF = 2.05	X= Y= Z=		2	10V R	1000 FIX	270 K	15.9K 3.307		2	120 Hz	1			4.811	KILO LBS	2	5K	INSIDE RAIL LATERAL FORCE	1
VIV1	2			HI TEC	HBWS	GF = 2.05	X= Y= Z=		3	20V R	500 FIX	499 K	31.4 3.514		3	120 Hz	1			8.969	KILO LBS			OUTSIDE RAIL VERTICAL FORCE	1
LIV1	3			HI TEC	HBW	GF = 2.05	X= Y= Z=		4	10V R	1000 FIX	270 K	17.3 3.308		4	120 Hz	1			5.219	KILO LBS			OUTSIDE RAIL LATERAL FORCE	1
VIV2	4			HI TEC	HBWS	GF = 2.05	X= Y= Z=		5	20V R	500 FIX	499 K	30.3K 3.539		5	120 Hz	1			8.560	KILO LBS	3	5K	INSIDE RAIL VERTICAL FORCE	2
LIV2	5			HI TEC	HBW	GF = 2.05	X= Y= Z=		6	10V R	1000 FIX	270 K	14.8K 3.305		6	120 Hz	1			4.469	KILO LBS	4	5K	INSIDE RAIL LATERAL FORCE	2
VIV2	6			HI TEC	HBWS	GF = 2.05	X= Y= Z=		7	20V R	500 FIX	499 K	33K 3.512		7	120 Hz	1			9.394	KILO LBS			OUTSIDE RAIL VERTICAL FORCE	2
LIV2	7			HI TEC	HBW	GF = 2.05	X= Y= Z=		8	10V R	1000 FIX	270 K	17.8 3.159		8	120 Hz	1			5.622	KILO LBS			OUTSIDE RAIL LATERAL FORCE	2
VIV3	8			HI TEC	HBWS	GF = 2.05	X= Y= Z=		9	20V R	500 FIX	499 K	32.5K 3.570		9	120 Hz	1			9.102	KILO LBS	5	5K	INSIDE RAIL VERTICAL FORCE	3
LIV3	9			HI TEC	HBW	GF = 2.05	X= Y= Z=		10	10V R	1000 FIX	270 K	19.1K 3.373		10	120 Hz	1			5.655	KILO LBS	6	5K	INSIDE RAIL LATERAL FORCE	3

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PEACEKEEPER RAIL GARRISON  
TEST CONFIGURATION DATA SHEET

PAGE 2 OF     

TEST NAME 7.3.1A PHASE 1      DATE            W.O. 87593 LOC. WORM LOOP  
 INSTR. ENGR./TECH. GRAFF/GRIEGO      TEST ENGR. BRABB      QA             
 SOFTWARE/VERSION xGNRI\_AQ8B      RECORDER I.D. NO.                 SET-UP FILE             
 SAMPLE RATE 500      ENCODER/DIGITIZER I.D. NO.           

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER						FILTER				SYSTEM			RECORDER		COMMENTS		
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. EU. & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	A0 (E.U.)	A1 (E.U./VOLT)	ENGR. UNITS	CH NO.		SENS. (E.U./DIV.)	
V0V3	11			HI TEC	HBWS	GF = 2.05	X= Y= Z=		11	20V R	500 FIX	499 K	31.4K 3.509		11	120 Hz	1			8.949	KILO LBS			OUTSIDE RAIL VERTICAL FORCE	3
L0W3	12			HI TEC	HBW	GF = 2.05	X= Y= Z=		12	10V R	1000 FIX	270 K	19.9K 3.132		12	120 Hz	1			6.351	KILO LBS			OUTSIDE RAIL LATERAL FORCE	3
V1V4	13			HI TEC	HBWS	GF = 2.05	X= Y= Z=		13	20V R	500 FIX	499 K	36.1K 3.530		13	120 Hz	1			10.215	KILO LBS			INSIDE RAIL VERTICAL FORCE	4
L1W4	14			HI TEC	HBW	GF = 2.05	X= Y= Z=		14	10V R	1000 FIX	270 K	19.5K 3.283		14	120 Hz	1			5.932	KILO LBS			INSIDE RAIL LATERAL FORCE	4
V0V4	15			HI TEC	HBWS	GF = 2.05	X= Y= Z=		15	20V R	500 FIX	499 K	35.5K 3.510		15	120 Hz	1			10.103	KILO LBS	7	5K	OUTSIDE RAIL VERTICAL FORCE	4
L0W4	16			HI TEC	HBW	GF = 2.05	X= Y= Z=		16	10V R	1000 FIX	270 K	13.8K 3.275		16	120 Hz	1			4.207	KILO LBS	8	5K	OUTSIDE RAIL LATERAL FORCE	4
							X= Y= Z=																		
							X= Y= Z=																		
							X= Y= Z=																		
							X= Y= Z=																		

NOTES:

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KF

## APPENDIX E

### Locomotive Performance Measurement List



# PEACEKEEPER RAIL GARRISON TEST CONFIGURATION DATA SHEET

KF

PAGE 2 OF     

TEST NAME 7.3.1A PHASE 1      DATE            W.O. 87561    LOC. PRG 4901  
 INSTR. ENGR./TECH. STARKWEATHER      TEST ENGR. BRABB      QA             
 SOFTWARE/VERSION EHP AQ7 Q      RECORDER I.D. NO.             
 SAMPLE RATE 10      ENCODER/DIGITIZER I.D. NO.           

SET-UP FILE  
MIF\_LDAS2

INST INIT	DAS CH	PP CH	MEAS. CODE	TRANSDUCER				AMPLIFIER					FILTER			SYSTEM			RECORDER		COMMENTS				
				MFG.	S.N.	SENS.	LOC.	CAL VOID DATE	CH NO.	EXC- L/R	GAIN FIX/VAR	R-CAL RES.	CAL. E.U. & VOLTS	S.N. CAL VOID DATE	NO.	FREQ.	GAIN	CAL VOID DATE	A0 (E.U.)	A1 (E.U./VOLT)		ENGR. UNITS	CH NO.	SENS. (E.U./DIV)	
	10		THRL				X= Y= Z=																	THROTTLE POSITION	
	11		DYNB				X= Y= Z=																		DYNAMIC BRAKE
	12		WSLP				X= Y= Z=																		WHEEL SLIP
	13		TSPD				X= Y= Z=																		TRAIN SPEED
	14		WSDD				X= Y= Z=																		WIND SPEED
	15		BRPP	CEL			X= Y= Z=						90 PSI 4.50												BRAKE PIPE PRESSURE
	16		BRCP	CEL			X= Y= Z=						90 PSI 4.50												BRAKE CYLINDER PRESSURE
	17		VDIR				X= Y= Z=																		WIND DIRECTION
							X= Y= Z=																		

NOTES:

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**APPENDIX F**

**Wayside Maeasurement Data**

**Wayside Data From**  
**WRM Constant Curving Tests**

WR25_RN001		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	116.1100	31.7904	9.3074	0.2928	116.1200	36.5127	11.1395	0.3051	0.5979
	2	116.5733	24.9823	-1.0101	-0.0404	116.5900	42.5665	4.0153	0.0943	0.0539
	3	117.8767	32.6746	6.4935	0.1987	117.8867	32.1629	8.9475	0.2782	0.4769
	4	118.3400	27.1927	-1.2266	-0.0451	118.3600	37.5441	3.8587	0.1028	0.0577
LOCO 4901	5	119.1900	30.1989	9.1390	0.3026	119.1933	36.6920	11.0090	0.3000	0.6027
	6	119.6467	22.3740	-0.7215	-0.0323	119.6667	42.6562	3.9631	0.0929	0.0607
	7	120.9500	31.0831	8.1530	0.2623	120.9667	36.6472	11.0873	0.3025	0.5648
	8	121.4233	27.6790	-0.5051	-0.0183	121.4367	38.3512	3.9109	0.1020	0.0837
MC EMS-1	9	122.4033	19.9867	5.1708	0.2587	122.4200	32.2077	9.3911	0.2916	0.5503
	10	122.7033	20.6941	3.2949	0.1592	122.7233	31.2660	0.4663	0.0149	0.1741
	11	125.7233	20.9151	4.6898	0.2242	125.7300	29.7414	9.3389	0.3140	0.5382
	12	126.0200	22.9487	0.7215	0.0314	126.0333	29.2929	0.2053	0.0070	0.0385
FC EMS-1	13	126.7700	22.1087	7.5758	0.3427	126.7833	34.3602	11.0351	0.3212	0.6638
	14	127.0700	19.5446	-0.4089	-0.0209	127.0900	33.9566	1.5101	0.0445	0.0236
	15	128.6033	27.0159	6.0366	0.2234	128.6233	28.0373	9.1823	0.3275	0.5509
	16	128.9100	25.7780	-0.5051	-0.0196	128.9233	29.4723	1.2491	0.0424	0.0228
T-5	17	129.5567	22.9045	5.0265	0.2195	129.5733	22.1181	6.6771	0.3019	0.5213
	18	129.9767	16.5827	-0.8418	-0.0508	129.9900	24.9432	1.8754	0.0752	0.0244
	19	132.6533	21.1361	3.6075	0.1707	132.6667	21.0418	6.2074	0.2950	0.4657
	20	133.0667	18.1300	-1.0342	-0.0570	133.0933	23.5530	1.4579	0.0619	0.0049
SC EMS-2	21	133.8633	22.3298	8.1530	0.3651	133.8800	31.9835	11.5310	0.3605	0.7257
	22	134.1600	22.7719	1.4671	0.0644	134.1833	29.9207	0.9882	0.0330	0.0975
	23	134.4900	23.7002	9.5960	0.4049	134.5067	30.4589	10.6176	0.3486	0.7535
	24	134.7900	21.7993	1.0342	0.0474	134.8100	31.8490	2.2147	0.0695	0.1170
	25	137.0967	19.6330	5.7239	0.2915	137.1200	28.4858	10.0696	0.3535	0.6450
	26	137.4100	20.2078	0.9861	0.0488	137.4233	26.5127	1.6145	0.0609	0.1097
	27	137.7300	25.8222	9.5960	0.3716	137.7433	28.8445	10.1479	0.3518	0.7234
	28	138.0267	23.0813	-0.5532	-0.0240	138.0467	30.3692	1.7711	0.0583	0.0344
TRIP-MLC	29	138.6700	29.3147	9.0669	0.3093	138.6833	42.6562	15.0800	0.3535	0.6628
	30	138.9867	30.5526	-1.1785	-0.0386	139.0033	40.3692	3.4934	0.0865	0.0480
	31	139.3000	31.5694	10.7985	0.3421	139.3167	41.2212	14.6103	0.3544	0.6965
	32	139.6133	27.5022	-0.5291	-0.0192	139.6300	40.5037	2.0320	0.0502	0.0309
	33	141.5367	26.2643	6.8062	0.2591	141.5567	35.4364	11.7919	0.3328	0.5919
	34	141.8567	27.3253	-1.1304	-0.0414	141.8733	35.3019	2.9193	0.0827	0.0413
	35	142.1633	34.1335	10.9428	0.3206	142.1833	43.6876	16.2021	0.3709	0.6915
	36	142.4800	32.1883	-0.7215	-0.0224	142.5000	43.9118	1.7450	0.0397	0.0173
LCC EMS-1	37	143.1400	21.4456	8.1530	0.3802	143.1500	29.2481	10.7220	0.3666	0.7468
	38	143.4400	18.7047	-0.4570	-0.0244	143.4633	30.2795	1.8754	0.0619	0.0375
	39	143.7667	20.7383	10.2213	0.4929	143.7833	31.4454	12.0268	0.3825	0.8753
	40	144.0700	18.3952	1.6114	0.0876	144.0900	31.9387	1.0926	0.0342	0.1218
	41	146.3933	19.1467	6.3252	0.3304	146.4167	27.1405	9.8347	0.3624	0.6927
	42	146.7067	18.4836	-0.5051	-0.0273	146.7233	27.3199	1.2752	0.0467	0.0194
	43	147.0233	22.0203	11.0871	0.5035	147.0467	32.2974	13.7752	0.4265	0.9300
	44	147.3367	21.0477	0.3127	0.0149	147.3533	32.9252	1.5623	0.0475	0.0623
MLC EMS-	45	147.9700	28.6074	7.6239	0.2665	147.9800	47.3198	13.0967	0.2768	0.5433
	46	148.2833	27.0601	-0.3127	-0.0116	148.3000	46.5127	1.7189	0.0370	0.0254
	47	148.5967	26.3085	9.2593	0.3520	148.6133	45.4364	13.6708	0.3009	0.6528
	48	148.9133	24.1423	0.2405	0.0100	148.9333	45.2571	1.1969	0.0265	0.0364
	49	151.2333	24.5402	5.8923	0.2401	151.2533	37.4544	12.6270	0.3371	0.5772
	50	151.5533	23.5234	-0.7215	-0.0307	151.5700	36.6920	2.7627	0.0753	0.0446
	51	151.8667	32.3209	9.2352	0.2857	151.8867	41.8490	12.5487	0.2999	0.5856
	52	152.1833	31.0389	0.3367	0.0109	152.2033	41.8490	0.4663	0.0111	0.0220
SC EMS-1	53	152.8167	23.9655	7.9365	0.3312	152.8333	29.2033	11.6875	0.4002	0.7314
	54	153.1267	21.8435	-0.6013	-0.0275	153.1433	30.0104	1.4840	0.0495	0.0219
	55	153.4433	23.4792	11.4719	0.4886	153.4600	31.7593	13.8796	0.4370	0.9256
	56	153.7533	21.8877	1.2025	0.0549	153.7700	31.4454	1.1708	0.0372	0.0922
	57	156.0900	20.4730	7.7682	0.3794	156.1000	26.8266	10.4871	0.3909	0.7704
	58	156.3900	19.8983	0.8658	0.0435	156.4033	26.4678	1.4579	0.0551	0.0986
	59	156.7067	22.5950	10.7023	0.4737	156.7200	31.2212	13.0706	0.4187	0.8923
	60	157.0167	23.9655	1.8519	0.0773	157.0333	28.4409	0.7272	0.0256	0.1028



## CRIB #2

		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	112.2967	35.5822	10.0357	0.2820	112.2900	32.3443	13.2771	0.4105	0.6925
	2	112.7700	40.7192	3.3333	0.0819	112.7567	25.5837	-0.9162	-0.0358	0.0461
	3	114.0700	33.6130	7.7122	0.2294	114.0633	31.5931	9.2018	0.2913	0.5207
	4	114.5433	37.3373	3.1993	0.0857	114.5300	27.6964	-1.2816	-0.0463	0.0394
LOCO 4901	5	115.3733	35.7534	9.0527	0.2532	115.3667	31.4992	10.8600	0.3448	0.5980
	6	115.8467	42.3887	2.8195	0.0665	115.8333	23.7058	-0.5790	-0.0244	0.0421
	7	117.1433	36.9520	9.4325	0.2553	117.1400	30.0438	12.2372	0.4073	0.6626
	8	117.6133	37.1233	3.1323	0.0844	117.6033	29.2926	-1.2535	-0.0428	0.0416
MC EMS-1	9	118.5967	31.0017	7.9803	0.2574	118.5933	21.1706	7.4311	0.3510	0.6084
	10	118.9067	28.8613	2.6631	0.0923	118.8967	20.8419	-0.8038	-0.0386	0.0537
	11	121.9267	27.2774	7.4218	0.2721	121.9200	23.5180	8.8645	0.3769	0.6490
	12	122.2333	27.7483	2.2163	0.0799	122.2233	23.2832	-1.5627	-0.0671	0.0127
FC EMS-1	13	122.9900	32.4572	8.8963	0.2741	122.9800	23.5180	10.6071	0.4510	0.7251
	14	123.2967	33.7414	2.3056	0.0683	123.2833	19.8091	-1.1411	-0.0576	0.0107
	15	124.8233	26.3784	7.6005	0.2881	124.8200	28.1189	8.8926	0.3163	0.6044
	16	125.1267	28.9469	2.3503	0.0812	125.1200	26.2879	-2.4902	-0.0947	-0.0135
T-5	17	125.7700	21.6695	6.2377	0.2879	125.7700	21.5461	7.4592	0.3462	0.6341
	18	126.1867	21.2842	1.8141	0.0852	126.1800	19.7152	-2.0124	-0.1021	-0.0168
	19	128.8500	19.9572	5.5228	0.2767	128.8467	21.7339	6.7285	0.3096	0.5863
	20	129.2667	21.5839	1.7918	0.0830	129.2500	20.3255	-1.8718	-0.0921	-0.0091
SC EMS-2	21	130.0433	29.0753	9.0750	0.3121	130.0400	27.1799	11.0005	0.4047	0.7169
	22	130.3533	31.8579	3.1546	0.0990	130.3400	23.7527	-2.2091	-0.0930	0.0060
	23	130.6700	27.9195	8.7176	0.3122	130.6633	23.8936	10.2136	0.4275	0.7397
	24	130.9767	29.4178	2.7525	0.0936	130.9667	20.2316	-1.7032	-0.0842	0.0094
	25	133.2800	26.3356	8.1590	0.3098	133.2733	21.9217	8.1338	0.3710	0.6809
	26	133.5867	28.0051	3.6461	0.1302	133.5767	19.2926	-1.6470	-0.0854	0.0448
	27	133.9067	28.4760	9.3208	0.3273	133.9033	24.2691	10.4665	0.4313	0.7586
	28	134.2167	29.5034	1.2332	0.0418	134.2033	21.1236	-0.4666	-0.0221	0.0197
TRIP-MLC	29	134.8433	37.4657	10.9741	0.2929	134.8333	34.3161	10.6914	0.3116	0.6045
	30	135.1633	40.8048	3.7578	0.0921	135.1500	31.6870	-2.1248	-0.0671	0.0250
	31	135.4733	36.9520	11.6666	0.3157	135.4667	30.2316	12.0404	0.3983	0.7140
	32	135.7900	37.1233	3.1546	0.0850	135.7833	28.0250	-1.1411	-0.0407	0.0443
	33	137.7100	32.3716	9.6336	0.2976	137.7000	29.9029	10.0449	0.3359	0.6335
	34	138.0300	37.2945	3.1099	0.0834	138.0167	27.8842	-1.4221	-0.0510	0.0324
	35	138.3400	40.7192	12.6050	0.3096	138.3333	32.4851	12.4339	0.3828	0.6923
	36	138.6600	40.8904	2.6184	0.0640	138.6500	30.9828	-1.4503	-0.0468	0.0172
LCC EMS-1	37	139.3133	27.9195	9.3878	0.3363	139.3133	24.9264	11.2254	0.4503	0.7866
	38	139.6200	31.8151	2.1939	0.0690	139.6100	21.4053	-0.7757	-0.0362	0.0327
	39	139.9400	27.1918	9.5442	0.3510	139.9333	20.9828	10.6352	0.5069	0.8579
	40	140.2467	27.6199	2.3056	0.0835	140.2400	18.5884	-1.0849	-0.0584	0.0251
	41	142.5600	24.8373	8.3378	0.3357	142.5500	21.1236	9.0050	0.4263	0.7620
	42	142.8667	27.4914	2.2609	0.0822	142.8567	18.5415	-1.1692	-0.0631	0.0192
	43	143.1867	29.6318	10.3262	0.3485	143.1800	23.5649	12.9117	0.5479	0.8964
	44	143.4933	30.5308	2.3727	0.0777	143.4867	20.3724	-0.7757	-0.0381	0.0396
MLC EMS-	45	144.1200	42.0034	11.4209	0.2719	144.1167	35.3489	11.0005	0.3112	0.5831
	46	144.4367	44.5719	1.5013	0.0337	144.4300	33.5180	-0.8038	-0.0240	0.0097
	47	144.7500	39.1781	11.4656	0.2927	144.7433	26.7574	9.9606	0.3723	0.6649
	48	145.0667	41.4041	1.9928	0.0481	145.0600	23.4241	-0.7195	-0.0307	0.0174
	49	147.3767	34.6832	10.5942	0.3055	147.3733	27.5086	9.0050	0.3274	0.6328
	50	147.7000	37.3373	2.3280	0.0624	147.6900	25.2551	-0.6914	-0.0274	0.0350
	51	148.0133	38.4931	11.2421	0.2921	148.0067	31.4053	10.0731	0.3207	0.6128
	52	148.3333	40.3339	1.6801	0.0417	148.3233	30.5133	-1.0006	-0.0328	0.0089
SC EMS-1	53	148.9600	27.2774	9.5219	0.3491	148.9533	26.6635	10.4665	0.3925	0.7416
	54	149.2700	30.7020	2.1046	0.0686	149.2600	23.2832	-0.9725	-0.0418	0.0268
	55	149.5900	28.7329	10.7953	0.3757	149.5867	23.8936	11.9561	0.5004	0.8761
	56	149.9033	30.5736	2.7078	0.0886	149.8933	20.8419	-1.2254	-0.0588	0.0298
	57	152.2400	25.4794	8.7846	0.3448	152.2267	22.0626	11.9561	0.5419	0.8867
	58	152.5467	27.8767	2.7971	0.1003	152.5400	19.9969	-1.1411	-0.0571	0.0433
	59	152.8667	24.7089	8.8293	0.3573	152.8633	26.4757	11.2535	0.4251	0.7824
	60	153.1733	28.0907	2.4620	0.0876	153.1633	20.8889	-1.4503	-0.0694	0.0182

		CRIB #								
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	94.0033	41.1207	5.4129	0.1316	94.0067	24.6434	7.2370	0.2937	0.4253
	2	94.4867	32.2035	-2.3643	-0.0734	94.4833	35.3864	2.0307	0.0574	-0.0160
	3	95.8067	30.9751	5.6957	0.1839	95.8067	34.6702	8.5386	0.2463	0.4302
	4	96.2833	22.6949	-0.8371	-0.0369	96.2867	42.9065	1.1418	0.0266	-0.0103
LOCO 4901	5	97.1367	40.4383	5.5260	0.1367	97.1367	25.5834	6.9831	0.2730	0.4096
	6	97.6100	31.4301	-2.4774	-0.0788	97.6067	35.5655	2.1894	0.0616	-0.0173
	7	98.9267	29.9742	5.9502	0.1985	98.9267	38.0722	8.8243	0.2318	0.4303
	8	99.4000	23.2863	-0.6391	-0.0275	99.3967	43.2199	0.8561	0.0198	-0.0076
MC EMS-1	9	100.4000	33.7049	4.1120	0.1220	100.3967	17.1232	4.7608	0.2780	0.4000
	10	100.7067	31.7941	-2.8167	-0.0886	100.7100	19.4061	4.2529	0.2192	0.1306
	11	103.7667	10.8204	1.6799	0.1553	103.7667	41.6980	6.1577	0.1477	0.3029
	12	104.0700	15.3245	3.6595	0.2388	104.0767	38.6541	-4.3503	-0.1125	0.1263
FC EMS-1	13	104.8500	36.9806	4.3100	0.1166	104.8433	18.1080	4.7291	0.2612	0.3777
	14	105.1500	31.2936	-2.5622	-0.0819	105.1533	22.0471	1.3005	0.0590	-0.0229
	15	106.7000	21.5120	5.7805	0.2687	106.7000	33.4616	8.6021	0.2571	0.5258
	16	107.0067	20.7386	0.4921	0.0237	107.0067	34.4464	-1.3026	-0.0378	-0.0141
T-5	17	107.6700	30.1562	3.3201	0.1101	107.6700	13.0498	3.3005	0.2529	0.3630
	18	108.0900	20.7840	-2.7319	-0.1314	108.0867	20.3909	2.4116	0.1183	-0.0132
	19	110.7767	17.7813	2.9808	0.1676	110.7700	24.2853	6.5704	0.2706	0.4382
	20	111.1900	16.3709	-0.0735	-0.0045	111.1900	25.6729	-0.8900	-0.0347	-0.0392
SC EMS-2	21	111.9800	33.6594	4.4514	0.1323	111.9767	19.0033	4.8878	0.2572	0.3895
	22	112.2833	32.7950	-1.0634	-0.0324	112.2833	19.3614	-0.3820	-0.0197	-0.0522
	23	112.6067	32.8405	2.9525	0.0899	112.6033	22.1367	5.9037	0.2667	0.3566
	24	112.9067	29.2463	-3.0147	-0.1031	112.9100	25.2253	1.8720	0.0742	-0.0289
	25	115.2067	20.9660	6.3179	0.3013	115.2067	30.5968	7.4910	0.2448	0.5462
	26	115.5067	16.2345	-1.7704	-0.1091	115.5133	35.0731	3.2688	0.0932	-0.0158
	27	115.8400	12.8223	7.3642	0.5743	115.8333	38.2065	8.8878	0.2326	0.8070
	28	116.1333	12.2763	0.6618	0.0539	116.1367	37.0426	-3.3026	-0.0892	-0.0353
TRIP-MLC	29	116.8067	42.8951	2.8676	0.0669	116.8000	26.4786	6.7291	0.2541	0.3210
	30	117.1167	42.4401	-1.9966	-0.0471	117.1167	27.2844	-1.0804	-0.0396	-0.0867
	31	117.4300	45.0334	5.0735	0.1127	117.4267	28.3587	7.3958	0.2608	0.3735
	32	117.7433	37.2081	-2.9864	-0.0803	117.7400	34.1331	2.3164	0.0679	-0.0124
	33	119.6467	28.7913	8.5520	0.2970	119.6400	41.1160	9.9354	0.2416	0.5387
	34	119.9533	24.6512	-1.0916	-0.0443	119.9567	44.7418	1.3323	0.0298	-0.0145
	35	120.2633	21.6030	11.5780	0.5360	120.2667	47.6066	12.6339	0.2654	0.8013
	36	120.5767	19.3282	0.5769	0.0299	120.5800	50.8743	-1.6836	-0.0331	-0.0032
LCC EMS-1	37	121.2333	32.9315	5.5826	0.1695	121.2300	17.2128	5.4275	0.3153	0.4848
	38	121.5333	26.6985	-2.1097	-0.0790	121.5367	22.5395	1.5545	0.0690	-0.0101
	39	121.8533	33.7049	5.1584	0.1530	121.8533	19.8538	6.6974	0.3373	0.4904
	40	122.1533	27.3355	-3.0430	-0.1113	122.1567	24.8672	3.2053	0.1289	0.0176
	41	124.4367	20.4201	7.2794	0.3565	124.4400	29.2987	8.8561	0.3023	0.6588
	42	124.7400	16.3255	-1.1482	-0.0703	124.7400	34.0883	2.0942	0.0614	-0.0089
	43	125.0567	11.5939	9.2308	0.7962	125.0567	38.8779	10.1894	0.2621	1.0583
	44	125.3600	12.2763	0.4921	0.0401	125.3600	37.4455	-2.1915	-0.0585	-0.0185
MLC EMS-	45	125.9833	46.7622	3.7726	0.0807	125.9800	26.7472	4.8561	0.1816	0.2622
	46	126.2900	42.8951	-1.4310	-0.0334	126.2933	29.3882	1.1101	0.0378	0.0044
	47	126.6067	41.7122	-2.3925	-0.0574	126.6033	30.0597	5.6497	0.1880	0.1306
	48	126.9133	38.6184	-2.6471	-0.0685	126.9167	32.7902	1.7450	0.0532	-0.0153
	49	129.1900	25.9251	4.2817	0.1652	129.1867	40.6684	7.6497	0.1881	0.3533
	50	129.5000	23.3318	-1.0634	-0.0456	129.5033	43.0856	1.9037	0.0442	-0.0014
	51	129.8167	22.6494	1.7081	0.0754	129.8133	45.8609	3.8720	0.0844	0.1599
	52	130.1267	22.1489	0.6335	0.0286	130.1267	46.6218	-3.6201	-0.0777	-0.0490
SC EMS-1	53	130.7500	35.9342	5.4695	0.1522	130.7433	15.9146	3.8720	0.2433	0.3955
	54	131.0467	33.1589	-0.0735	-0.0022	131.0567	18.7794	-0.5090	-0.0271	-0.0293
	55	131.3733	33.0679	4.7907	0.1449	131.3633	20.7938	7.1735	0.3450	0.4899
	56	131.6733	28.6093	-3.0147	-0.1054	131.6733	25.2253	2.5386	0.1006	-0.0047
	57	133.9767	19.6467	7.2228	0.3676	133.9800	31.2235	10.5386	0.3375	0.7052
	58	134.2833	15.6885	-1.3179	-0.0840	134.2833	35.6102	4.8561	0.1364	0.0524
	59	134.6067	14.2326	7.7885	0.5472	134.6033	35.4312	6.8561	0.1935	0.7407
	60	134.9067	14.3236	2.2172	0.1548	134.9067	33.9988	-3.9058	-0.1149	0.0399

WR25_RN002		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	117.3767	31.8464	11.6755	0.3666	117.3867	35.8819	13.4960	0.3761	0.7427
	2	117.8667	22.3416	-1.1672	-0.0522	117.8833	43.0568	4.6233	0.1074	0.0551
	3	119.2033	33.4379	10.8337	0.3240	119.2133	31.2182	12.4521	0.3989	0.7229
	4	119.6833	28.3539	-1.3837	-0.0488	119.7033	36.6891	3.7100	0.1011	0.0523
LOCO 4901	5	120.5433	30.8296	13.1666	0.4271	120.5567	36.0613	15.0357	0.4170	0.8440
	6	121.0267	21.5900	-1.1191	-0.0518	121.0400	43.7742	4.1797	0.0955	0.0436
	7	122.3533	30.6528	12.8539	0.4193	122.3700	34.9850	14.7486	0.4216	0.8409
	8	122.8367	27.8234	-1.0951	-0.0394	122.8600	38.7518	4.0753	0.1052	0.0658
MC EMS-1	9	123.8467	19.5564	9.5110	0.4863	123.8600	32.9222	14.3311	0.4353	0.9216
	10	124.1467	19.4238	2.4884	0.1281	124.1700	31.8012	-0.8568	-0.0269	0.1012
	11	127.2167	20.9269	8.5009	0.4062	127.2367	29.8281	12.9741	0.4350	0.8412
	12	127.5267	22.2973	0.7087	0.0318	127.5433	29.7832	0.3436	0.0115	0.0433
FC EMS-1	13	128.2933	21.4132	10.3046	0.4812	128.3100	35.9716	14.2528	0.3962	0.8775
	14	128.6067	20.3522	0.3239	0.0159	128.6233	33.4604	1.0482	0.0313	0.0472
	15	130.1567	27.6024	7.6591	0.2775	130.1667	28.3483	11.2778	0.3978	0.6753
	16	130.4633	29.1497	2.0074	0.0689	130.4800	27.0927	0.8133	0.0300	0.0989
T-5	17	131.1233	21.8553	7.2262	0.3306	131.1367	22.4290	8.1463	0.3632	0.6938
	18	131.5433	16.5502	-1.2153	-0.0734	131.5600	24.2227	1.5962	0.0659	-0.0075
	19	134.2467	20.7943	5.5427	0.2666	134.2633	21.5770	7.8593	0.3642	0.6308
	20	134.6600	17.5228	-1.2394	-0.0707	134.6800	24.3124	1.7006	0.0700	-0.0008
SC EMS-2	21	135.4533	22.6952	10.5211	0.4636	135.4700	32.4290	14.0962	0.4347	0.8983
	22	135.7533	22.6952	1.4783	0.0651	135.7800	30.0971	0.9438	0.0314	0.0965
	23	136.0867	23.6678	12.4210	0.5248	136.1033	30.9491	13.5743	0.4386	0.9634
	24	136.3833	21.6342	1.2378	0.0572	136.4067	31.5770	1.8833	0.0596	0.1169
	25	138.7133	20.7058	7.7072	0.3722	138.7333	28.7070	10.9386	0.3810	0.7533
	26	139.0233	19.8659	0.7327	0.0369	139.0333	26.7339	1.5440	0.0578	0.0946
	27	139.3433	24.5962	11.0983	0.4512	139.3633	29.9626	11.4605	0.3825	0.8337
	28	139.6533	20.4406	-0.6862	-0.0336	139.6700	32.6083	2.1442	0.0658	0.0322
TRIP-MLC	29	140.3233	29.4591	10.4249	0.3539	140.3300	43.4155	16.4970	0.3800	0.7339
	30	140.6333	29.7686	-1.1672	-0.0392	140.6500	40.8595	3.5273	0.0863	0.0471
	31	140.9500	30.5644	12.2527	0.4009	140.9633	41.8012	16.4448	0.3934	0.7943
	32	141.2667	28.1329	0.2517	0.0090	141.2800	40.1420	1.7789	0.0443	0.0533
	33	143.1933	26.1877	7.5870	0.2897	143.2100	35.6577	12.4521	0.3492	0.6389
	34	143.5100	26.6740	-1.1672	-0.0438	143.5300	35.9267	2.6661	0.0742	0.0304
	35	143.8267	35.0294	10.2806	0.2935	143.8433	43.0119	15.9751	0.3714	0.6649
	36	144.1433	32.2001	-0.5179	-0.0161	144.1633	44.0881	1.8833	0.0427	0.0266
LCC EMS-1	37	144.8233	21.9879	9.3426	0.4249	144.8333	29.6487	11.5649	0.3901	0.8150
	38	145.1200	18.6722	-0.6862	-0.0368	145.1433	30.5007	2.2225	0.0729	0.0361
	39	145.4500	20.0427	11.1464	0.5561	145.4633	33.3707	12.9480	0.3880	0.9441
	40	145.7567	18.1859	1.0694	0.0588	145.7733	31.4424	1.1265	0.0358	0.0946
	41	148.0767	19.3354	7.2743	0.3762	148.0967	26.9581	10.5210	0.3903	0.7665
	42	148.3800	18.0533	-0.6622	-0.0367	148.4000	27.2272	1.2831	0.0471	0.0104
	43	148.7100	22.2531	10.9059	0.4901	148.7233	32.6083	13.0524	0.4003	0.8904
	44	149.0067	20.4848	-0.3495	-0.0171	149.0267	33.2361	1.5440	0.0465	0.0294
MLC EMS-	45	149.6400	28.8844	8.6452	0.2993	149.6567	47.4065	13.6787	0.2885	0.5878
	46	149.9567	26.8066	-0.4938	-0.0184	149.9733	46.7339	1.5962	0.0342	0.0157
	47	150.2700	26.0109	11.3628	0.4369	150.2900	45.7025	15.3749	0.3364	0.7733
	48	150.5900	24.2425	-0.3255	-0.0134	150.6067	45.2989	1.3353	0.0295	0.0161
	49	152.9000	24.2425	6.8655	0.2832	152.9200	37.0926	13.3394	0.3596	0.6428
	50	153.2133	22.8721	-0.9989	-0.0437	153.2333	37.3169	2.9793	0.0798	0.0362
	51	153.5433	31.4485	10.5692	0.3361	153.5500	42.3841	13.5482	0.3197	0.6557
	52	153.8533	30.5644	0.2036	0.0067	153.8700	42.4290	0.4480	0.0106	0.0172
SC EMS-1	53	154.4867	23.1373	8.6692	0.3747	154.4933	30.2765	12.0868	0.3992	0.7739
	54	154.7867	22.7394	-0.6862	-0.0302	154.8067	29.3796	1.4396	0.0490	0.0188
	55	155.1033	22.8721	10.6894	0.4674	155.1267	32.2048	12.9219	0.4012	0.8686
	56	155.4200	23.0047	1.6226	0.0705	155.4367	31.3527	0.9177	0.0293	0.0998
	57	157.7400	20.7058	8.1161	0.3920	157.7633	26.4648	10.3645	0.3916	0.7836
	58	158.0533	19.8217	-0.8530	-0.0430	158.0700	26.8684	1.3874	0.0516	0.0947
	59	158.3733	22.8279	10.3287	0.4525	158.3867	30.9491	12.4261	0.4015	0.8540
	60	158.6733	24.2425	1.8871	0.0778	158.6933	28.5725	0.3958	0.0139	0.0917

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	113.4333	34.9729	12.1559	0.3476	113.4233	32.8466	16.8727	0.5137	0.8613
	2	113.9200	42.1218	3.5545	0.0844	113.9033	24.3490	-1.5927	-0.0654	0.0190
	3	115.2633	33.7742	11.7984	0.3493	115.2600	31.2973	15.8890	0.5077	0.8570
	4	115.7533	37.4129	3.0853	0.0825	115.7367	28.1518	-1.7613	-0.0626	0.0199
LOCO 4901	5	116.6167	35.1869	13.2506	0.3766	116.6133	32.0485	18.5872	0.5800	0.9566
	6	117.1100	42.6784	3.0853	0.0723	117.0933	22.8466	-1.2554	-0.0550	0.0173
	7	118.4500	36.3427	13.5857	0.3738	118.4433	30.4053	18.5310	0.6095	0.9833
	8	118.9367	37.7554	3.7109	0.0983	118.9200	29.7480	-2.0423	-0.0687	0.0296
MC EMS-1	9	119.9467	31.0773	11.4633	0.3689	119.9367	21.1565	12.3477	0.5836	0.9525
	10	120.2600	29.3222	2.0353	0.0694	120.2467	20.2175	-0.5246	-0.0260	0.0435
	11	123.3567	26.3684	9.2739	0.3517	123.3500	24.1612	12.0105	0.4971	0.8488
	12	123.6700	28.5945	2.3704	0.0829	123.6567	22.0015	-1.8737	-0.0852	-0.0023
FC EMS-1	13	124.4400	33.8171	10.5920	0.3132	124.4333	21.7199	11.7294	0.5400	0.8533
	14	124.7533	34.9301	2.4151	0.0691	124.7433	18.9969	-0.9181	-0.0483	0.0208
	15	126.3067	27.6955	9.1175	0.3292	126.3000	26.0391	9.7620	0.3749	0.7041
	16	126.6200	29.3222	2.5938	0.0885	126.6100	25.3349	-2.4358	-0.0961	-0.0077
T-5	17	127.2767	22.0448	6.9727	0.3163	127.2733	20.8748	8.7221	0.4178	0.7341
	18	127.7067	21.5311	2.0130	0.0935	127.6833	19.4663	-2.4358	-0.1251	-0.0316
	19	130.4067	19.8616	6.1014	0.3072	130.4033	22.0954	7.7384	0.3502	0.6574
	20	130.8300	21.5739	1.8342	0.0850	130.8133	20.3114	-2.4358	-0.1199	-0.0349
SC EMS-2	21	131.6200	29.8359	9.9888	0.3348	131.6067	26.2269	12.2634	0.4676	0.8024
	22	131.9267	32.1475	3.0630	0.0953	131.9167	23.6447	-2.2110	-0.0935	0.0018
	23	132.2500	28.2948	9.6984	0.3428	132.2433	24.3020	12.1791	0.5012	0.8439
	24	132.5567	29.4506	2.6385	0.0896	132.5467	20.2175	-1.7894	-0.0885	0.0011
	25	134.8733	26.1116	8.6260	0.3304	134.8733	22.1424	10.3522	0.4675	0.7979
	26	135.1800	28.4660	2.8619	0.1005	135.1733	18.9499	-1.9299	-0.1018	-0.0013
	27	135.5033	29.6219	9.8548	0.3327	135.4933	23.8325	11.0268	0.4627	0.7954
	28	135.8100	30.2640	1.9683	0.0650	135.8000	20.4992	-0.9462	-0.0462	0.0189
	TRIP-MLC	29	136.4767	36.9849	12.0889	0.3269	136.4667	35.1471	12.1791	0.3465
30		136.7967	40.5808	3.5098	0.0865	136.7867	31.9546	-2.0423	-0.0639	0.0226
31		137.1067	36.7280	12.9155	0.3517	137.1067	29.5133	13.5844	0.4603	0.8119
32		137.4300	37.9266	2.8843	0.0761	137.4133	27.4945	-1.2835	-0.0467	0.0294
33		139.3533	32.4472	10.0111	0.3085	139.3533	29.9358	11.1673	0.3730	0.6816
34		139.6733	37.0277	2.9960	0.0809	139.6600	28.1048	-1.4802	-0.0527	0.0282
35		139.9900	39.4249	12.8708	0.3265	139.9833	33.3161	13.7249	0.4120	0.7384
36		140.3067	41.8650	2.9066	0.0694	140.2967	30.4522	-1.3116	-0.0431	0.0264
LCC EMS-1		37	140.9767	27.9523	9.4750	0.3390	140.9700	25.4288	12.0105	0.4723
	38	141.2867	32.6184	2.7279	0.0836	141.2767	21.1565	-1.2554	-0.0593	0.0243
	39	141.6067	27.3530	9.1175	0.3333	141.6000	20.9217	9.5372	0.4559	0.7892
	40	141.9133	28.1664	2.3257	0.0826	141.9067	18.4804	-1.3116	-0.0710	0.0116
	41	144.2400	24.8701	8.6260	0.3468	144.2333	20.2175	8.5816	0.4245	0.7713
	42	144.5467	27.1390	1.9236	0.0709	144.5367	18.8091	-1.2835	-0.0682	0.0026
	43	144.8633	29.1082	10.3686	0.3562	144.8567	24.1142	12.7412	0.5284	0.8846
	44	145.1733	31.0773	2.4151	0.0777	145.1633	20.0767	-1.0305	-0.0513	0.0264
MLC EMS-	45	145.8033	42.3359	12.0665	0.2850	145.7967	35.5227	11.7575	0.3310	0.6160
	46	146.1200	44.8616	1.5438	0.0344	146.1100	33.0344	-0.8900	-0.0269	0.0075
	47	146.4333	39.0397	11.9102	0.3051	146.4267	27.5414	10.6614	0.3871	0.6922
	48	146.7500	41.1373	2.0576	0.0500	146.7400	23.2222	-0.7495	-0.0323	0.0178
	49	149.0567	34.2451	11.3516	0.3315	149.0500	27.4475	9.9869	0.3639	0.6953
	50	149.3733	37.2417	2.2811	0.0613	149.3667	25.2879	-0.7495	-0.0296	0.0316
	51	149.6900	38.3975	12.0219	0.3131	149.6800	31.7198	11.1954	0.3530	0.6660
	52	150.0067	40.5808	1.6555	0.0408	149.9933	29.9828	-1.0868	-0.0363	0.0045
SC EMS-1	53	150.6333	27.0534	9.5420	0.3527	150.6267	27.1659	10.5209	0.3873	0.7400
	54	150.9400	30.6921	2.4151	0.0787	150.9300	22.7997	-1.3397	-0.0588	0.0199
	55	151.2633	29.1082	10.0335	0.3447	151.2533	24.1612	11.7013	0.4843	0.8290
	56	151.5733	30.9489	2.9513	0.0954	151.5633	20.4992	-1.7051	-0.0832	0.0122
	57	153.9033	25.7263	8.8047	0.3423	153.8967	22.0015	12.3758	0.5625	0.9048
	58	154.2133	28.8085	3.2641	0.1133	154.2000	18.7152	-1.3397	-0.0716	0.0417
	59	154.5333	25.0842	9.0728	0.3617	154.5233	25.4757	11.4765	0.4505	0.8122
	60	154.8400	27.6099	2.4151	0.0875	154.8267	21.1565	-2.0142	-0.0952	-0.0077

CRIB #3										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOB1	L/V	AXLE SUM
LOCO 4900	1	94.3433	41.6773	6.1614	0.1478	94.3367	25.3238	8.2138	0.3244	0.4722
	2	94.8400	32.9876	-2.6056	-0.0790	94.8467	34.0972	2.2455	0.0659	-0.0131
	3	96.2167	31.0312	5.6523	0.1822	96.2200	34.4553	9.1026	0.2642	0.4463
	4	96.7167	23.1150	-0.8239	-0.0356	96.7167	41.8860	-0.9291	-0.0222	-0.0578
LOCO 4901	5	97.6067	40.7219	5.7089	0.1402	97.6067	25.5476	7.4518	0.2917	0.4319
	6	98.1033	30.5763	-2.3793	-0.0778	98.1067	35.5744	2.0550	0.0578	-0.0201
	7	99.4867	30.1213	6.2462	0.2074	99.4867	38.0364	9.0074	0.2368	0.4442
	8	99.9833	23.0695	-0.6542	-0.0284	99.9833	43.0945	-0.9926	-0.0230	-0.0514
MC EMS-1	9	101.0367	33.8065	4.6908	0.1388	101.0267	17.1322	5.1661	0.3016	0.4403
	10	101.3567	32.1686	-2.8884	-0.0898	101.3533	19.1017	4.3407	0.2272	0.1375
	11	104.5567	9.9666	2.1738	0.2181	104.5633	42.9155	8.9439	0.2084	0.4265
	12	104.8800	15.8356	3.8424	0.2426	104.8867	37.8125	-5.8180	-0.1539	0.0888
FC EMS-1	13	105.6967	36.9002	4.9736	0.1348	105.6900	18.2065	5.1026	0.2803	0.4151
	14	106.0100	27.9830	-2.6056	-0.0931	106.0133	24.9657	2.0550	0.0823	-0.0108
	15	107.6333	21.0676	6.3593	0.3019	107.6300	34.2763	9.1344	0.2665	0.5683
	16	107.9467	18.0194	0.2225	0.0124	107.9500	37.3202	-0.4847	-0.0130	-0.0006
T-5	17	108.6400	29.8938	3.4465	0.1153	108.6333	12.9693	3.6741	0.2833	0.3986
	18	109.0767	20.4762	-2.6904	-0.1314	109.0767	20.6684	2.4360	0.1179	-0.0135
	19	111.8700	17.4735	3.6444	0.2086	111.8700	24.2495	7.3249	0.3021	0.5106
	20	112.3033	16.2906	-0.1169	-0.0072	112.3033	25.5476	-0.7704	-0.0302	-0.0373
SC EMS-2	21	113.1233	33.3060	4.5211	0.1357	113.1167	19.0570	5.3884	0.2828	0.4185
	22	113.4333	33.0786	-1.0784	-0.0326	113.4367	18.9675	-0.3577	-0.0189	-0.0515
	23	113.7667	32.5326	2.9374	0.0903	113.7667	22.3694	6.4360	0.2877	0.3780
	24	114.0800	29.4844	-3.0015	-0.1018	114.0800	25.1447	1.8646	0.0742	-0.0277
	25	116.4533	19.5663	5.9069	0.3019	116.4567	31.4562	8.4677	0.2692	0.5711
	26	116.7633	16.7910	-1.5592	-0.0929	116.7700	34.4553	2.0868	0.0606	-0.0323
	27	117.1067	13.0149	7.9713	0.6125	117.1000	38.1259	9.1026	0.2388	0.8512
	28	117.4067	12.9239	0.7315	0.0566	117.4100	37.1411	-2.9291	-0.0789	-0.0223
TRIP-MLC	29	118.1067	42.7237	2.8243	0.0661	118.1033	26.2190	6.7534	0.2576	0.3237
	30	118.4300	41.9958	-1.7006	-0.0405	118.4300	27.2933	-1.4370	-0.0527	-0.0931
	31	118.7533	44.1341	4.2666	0.0967	118.7500	28.6362	7.5471	0.2636	0.3602
	32	119.0733	37.4007	-3.0015	-0.0803	119.0767	35.0820	2.1820	0.0622	-0.0181
	33	121.0367	28.0740	7.8582	0.2799	121.0367	40.0507	9.8328	0.2455	0.5254
	34	121.3533	24.5253	-1.2198	-0.0497	121.3567	44.7508	-1.3101	-0.0293	-0.0790
	35	121.6800	20.7947	10.4600	0.5030	121.6767	49.7642	12.8487	0.2582	0.7612
	36	121.9967	20.9312	-0.0038	-0.0002	121.9967	49.8537	-2.2307	-0.0447	-0.0449
LCC EMS-1	37	122.6733	32.7146	4.0969	0.1252	122.6667	17.6693	5.1344	0.2906	0.4158
	38	122.9767	26.6636	-1.8137	-0.0680	122.9800	22.2799	1.1026	0.0495	-0.0185
	39	123.3100	33.0786	3.8989	0.1179	123.3067	20.3551	6.5630	0.3224	0.4403
	40	123.6167	27.9375	-2.9449	-0.1054	123.6167	24.5180	2.6265	0.1071	0.0017
	41	125.9600	20.3397	6.7836	0.3335	125.9533	29.8448	9.1661	0.3071	0.6406
	42	126.2633	16.5635	-0.9653	-0.0583	126.2633	34.0077	1.6423	0.0483	-0.0100
	43	126.5900	11.4680	9.4985	0.8283	126.5900	39.1107	10.5312	0.2693	1.0975
	44	126.9000	11.8320	0.5901	0.0499	126.8967	37.9468	-2.2624	-0.0596	-0.0097
MLC EMS-	45	127.5333	45.8174	-3.1995	-0.0698	127.5300	27.2933	3.1344	0.1148	0.0450
	46	127.8467	42.6782	-1.7572	-0.0412	127.8500	29.6210	0.6582	0.0222	-0.0189
	47	128.1667	41.4953	-2.8884	-0.0696	128.1633	30.6505	5.1661	0.1686	0.0989
	48	128.4800	38.4926	-2.7187	-0.0706	128.4800	32.7991	1.8011	0.0549	-0.0157
	49	130.7933	25.7537	2.0890	0.0811	130.7900	40.9907	5.8645	0.1431	0.2242
	50	131.1067	23.5244	-1.2198	-0.0519	131.1100	43.2288	1.4201	0.0329	-0.0190
	51	131.4267	22.3415	1.5517	0.0695	131.4233	45.7355	3.6741	0.0803	0.1498
	52	131.7367	22.0231	0.4770	0.0217	131.7400	46.4518	-3.0878	-0.0665	-0.0448
SC EMS-1	53	132.3667	36.1268	5.4827	0.1518	132.3633	15.7893	3.6741	0.2327	0.3845
	54	132.6733	33.4425	0.8446	0.0253	132.6800	18.6989	-0.4529	-0.0242	0.0010
	55	132.9967	32.4416	4.4928	0.1385	132.9933	21.2056	7.4518	0.3514	0.4899
	56	133.3033	28.1650	-3.0581	-0.1086	133.3033	25.6819	2.5630	0.0998	-0.0088
	57	135.6300	19.5663	7.0946	0.3626	135.6267	31.5010	11.1661	0.3545	0.7171
	58	135.9367	15.5626	-1.4744	-0.0947	135.9333	35.3058	-4.9122	-0.1391	-0.0444
	59	136.2567	14.6982	8.9329	0.6078	136.2533	35.8878	7.3249	0.2041	0.8119
	60	136.5567	14.5162	1.8062	0.1244	136.5600	34.0972	-3.9450	-0.1157	0.0087

WR27_RN001		CRIB #1								
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	89.0133	33.5204	12.8635	0.3838	89.0267	35.5291	14.2119	0.4000	0.7838
	2	89.3767	29.0112	-1.4703	-0.0507	89.3933	39.8340	3.2777	0.0823	0.0316
	3	90.4000	34.5814	11.2522	0.3254	90.4133	30.4170	12.3069	0.4046	0.7300
	4	90.7700	28.4807	-1.4703	-0.0516	90.7800	36.5605	2.7818	0.0761	0.0245
LOCO 4901	5	91.4200	31.7963	11.5889	0.3645	91.4333	35.2152	12.8027	0.3636	0.7280
	6	91.7867	25.2092	-0.9652	-0.0383	91.8067	40.1031	3.0689	0.0765	0.0382
	7	92.8133	33.1226	10.1459	0.3063	92.8233	34.7668	11.4718	0.3300	0.6363
	8	93.1833	29.4090	-1.0855	-0.0369	93.2000	36.2914	3.1211	0.0860	0.0491
MC EMS-1	9	93.9633	21.1420	7.8130	0.3696	93.9733	32.0314	10.6889	0.3337	0.7033
	10	94.2067	21.3631	2.8828	0.1349	94.2200	30.2376	-1.1587	-0.0383	0.0966
	11	96.6000	23.8830	6.6346	0.2778	96.6067	26.8744	9.5929	0.3570	0.6348
	12	96.8400	23.3083	0.7183	0.0308	96.8533	30.5515	-0.6367	-0.0208	0.0100
FC EMS-1	13	97.4400	24.4577	9.8092	0.4011	97.4533	32.9282	11.6023	0.3524	0.7534
	14	97.6767	19.0642	-0.3640	-0.0191	97.6933	33.7354	1.1378	0.0337	0.0146
	15	98.8967	27.2870	7.3080	0.2678	98.9000	27.1435	9.9843	0.3678	0.6357
	16	99.1333	28.8785	1.4157	0.0490	99.1467	27.6367	0.9290	0.0336	0.0826
T-5	17	99.6467	24.6787	6.9232	0.2805	99.6533	19.4305	6.5919	0.3393	0.6198
	18	99.9767	17.8706	-0.9412	-0.0527	99.9867	23.4663	1.0595	0.0452	-0.0075
	19	102.0733	22.3799	5.7207	0.2556	102.0833	19.6098	6.9572	0.3548	0.6104
	20	102.3967	19.6831	-1.1336	-0.0576	102.4133	22.4350	1.1900	0.0530	-0.0046
SC EMS-2	21	103.0133	22.5567	9.0636	0.4018	103.0233	32.4349	12.5678	0.3875	0.7893
	22	103.2567	23.3083	1.5841	0.0680	103.2667	29.0717	0.1200	0.0041	0.0721
	23	103.5067	24.6345	11.4686	0.4656	103.5167	30.2376	11.5240	0.3811	0.8467
	24	103.7400	23.7503	2.0410	0.0859	103.7533	30.1031	0.5376	0.0179	0.1038
	25	105.5467	19.7274	8.4383	0.4278	105.5533	28.2645	10.7933	0.3819	0.8096
	26	105.7833	19.9926	0.6221	0.0311	105.7933	27.0538	1.2944	0.0478	0.0790
	27	106.0333	26.6239	10.9395	0.4109	106.0433	26.8296	10.3497	0.3858	0.7967
	28	106.2700	23.5293	-0.3159	-0.0134	106.2900	28.8923	1.2683	0.0439	0.0305
TRIP-MLC	29	106.8067	31.1332	10.7471	0.3452	106.8133	41.4484	15.4123	0.3718	0.7170
	30	107.0433	31.6195	-0.9893	-0.0313	107.0600	39.2511	2.8601	0.0729	0.0416
	31	107.2900	32.0616	11.9496	0.3727	107.3000	41.4932	15.9342	0.3840	0.7567
	32	107.5333	29.8069	0.5740	0.0193	107.5500	39.4753	0.9290	0.0235	0.0428
	33	109.0333	27.5523	8.1497	0.2958	109.0400	34.9910	12.9071	0.3689	0.6647
	34	109.2767	28.3922	-1.1336	-0.0399	109.2900	34.2735	1.6597	0.0484	0.0085
	35	109.5200	36.8361	10.9395	0.2970	109.5333	40.1928	15.0470	0.3744	0.6714
	36	109.7633	36.4382	1.2955	0.0356	109.7767	39.7892	0.9029	0.0227	0.0582
LCC EMS-1	37	110.2900	22.2030	9.7851	0.4407	110.2967	28.6233	11.3935	0.3981	0.8388
	38	110.5233	20.3463	1.1271	0.0554	110.5367	29.2063	1.3205	0.0452	0.1006
	39	110.7667	23.3967	10.6750	0.4563	110.7800	29.4305	11.4457	0.3889	0.8452
	40	111.0033	20.3021	1.5600	0.0768	111.0233	29.6995	0.6159	0.0207	0.0976
	41	112.7900	19.6831	8.0535	0.4092	112.7967	26.9193	10.5324	0.3913	0.8004
	42	113.0167	19.4179	0.7664	0.0395	113.0367	25.8879	0.6942	0.0268	0.0663
	43	113.2600	23.9272	10.9876	0.4592	113.2733	30.7309	11.9415	0.3886	0.8478
	44	113.4933	24.0156	0.5018	0.0209	113.5067	29.6098	-1.0021	-0.0338	-0.0129
MLC EMS-	45	113.9767	29.6301	8.7269	0.2945	113.9900	45.5739	13.0115	0.2855	0.5800
	46	114.2167	27.8617	-0.2918	-0.0105	114.2300	44.8565	1.1117	0.0248	0.0143
	47	114.4567	29.9395	11.8534	0.3959	114.4667	42.0313	13.9770	0.3325	0.7285
	48	114.6933	26.9334	0.2854	0.0106	114.7067	41.7174	-1.1848	-0.0284	-0.0178
	49	116.4333	25.6955	6.8510	0.2666	116.4467	36.0672	12.6983	0.3521	0.6187
	50	116.6733	25.2976	-1.1336	-0.0448	116.6867	35.3049	2.6514	0.0751	0.0303
	51	116.9100	35.6425	10.7952	0.3029	116.9200	38.7578	11.8372	0.3054	0.6083
	52	117.1433	36.8361	1.3195	0.0358	117.1567	38.6233	-0.9760	-0.0253	0.0105
SC EMS-1	53	117.6200	26.1376	8.7269	0.3339	117.6267	27.5022	10.9760	0.3991	0.7330
	54	117.8467	23.7945	-0.3880	-0.0163	117.8600	27.5471	1.0073	0.0366	0.0203
	55	118.0867	22.8220	9.1117	0.3993	118.0967	32.7488	13.3768	0.4085	0.8077
	56	118.3167	26.6239	3.3878	0.1273	118.3300	29.9686	-1.4457	-0.0482	0.0790
	57	120.0433	22.2472	9.0396	0.4063	120.0567	25.4843	10.2714	0.4031	0.8094
	58	120.2767	23.6619	1.6803	0.0710	120.2933	24.3632	0.9290	0.0381	0.1091
	59	120.5100	24.3251	10.7712	0.4428	120.5233	30.0134	11.8111	0.3935	0.8363
	60	120.7400	23.9714	1.9448	0.0811	120.7533	29.4305	0.5115	0.0174	0.0985

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	86.0233	34.0853	12.3905	0.3635	86.0167	34.6385	17.9005	0.5168	0.8803
	2	86.3933	40.4209	3.2976	0.0816	86.3800	26.4225	-2.3637	-0.0895	-0.0079
	3	87.4100	32.2018	11.7649	0.3654	87.4067	32.8544	16.2141	0.4935	0.8589
	4	87.7800	33.7429	2.5827	0.0765	87.7700	31.1643	-2.4199	-0.0777	-0.0011
LOCO 4901	5	88.4367	33.9569	12.5692	0.3702	88.4300	32.8544	18.1253	0.5517	0.9218
	6	88.8067	41.3627	2.8954	0.0700	88.7933	24.4037	-1.8297	-0.0750	-0.0050
	7	89.8233	35.1555	13.0384	0.3709	89.8200	32.6666	19.5587	0.5987	0.9696
	8	90.1933	34.8131	2.6720	0.0768	90.1833	31.7746	-2.5323	-0.0797	-0.0029
MC EMS-1	9	90.9633	27.2360	10.0447	0.3688	90.9567	23.5117	12.3918	0.5271	0.8959
	10	91.2033	28.6059	1.5103	0.0528	91.1967	21.4929	-0.3682	-0.0171	0.0357
	11	93.5867	25.1384	9.5755	0.3809	93.5800	25.0141	12.9820	0.5190	0.8999
	12	93.8300	26.8935	2.1135	0.0786	93.8233	24.2629	-1.9702	-0.0812	-0.0026
FC EMS-1	13	94.4300	30.6179	10.7149	0.3500	94.4267	25.8122	14.4716	0.5607	0.9106
	14	94.6733	33.4860	2.4710	0.0738	94.6633	19.8967	-1.4081	-0.0708	0.0030
	15	95.8867	23.6829	8.2350	0.3477	95.8833	32.7136	11.1551	0.3410	0.6887
	16	96.1300	28.9483	2.5156	0.0869	96.1233	25.7652	-2.8696	-0.1114	-0.0245
T-5	17	96.6433	19.3165	6.9839	0.3616	96.6300	23.8404	10.0871	0.4231	0.7847
	18	96.9767	21.4997	1.6890	0.0786	96.9600	19.7558	-2.5604	-0.1296	-0.0510
	19	99.0833	20.9432	7.5201	0.3591	99.0833	20.3192	9.9466	0.4895	0.8486
	20	99.4167	20.9432	1.4656	0.0700	99.4067	21.0704	-2.3356	-0.1109	-0.0409
SC EMS-2	21	100.0333	26.2942	8.7489	0.3327	100.0267	30.7887	11.0989	0.3605	0.6932
	22	100.2700	30.5322	2.1358	0.0700	100.2667	25.4366	-2.0545	-0.0808	-0.0108
	23	100.5200	26.5083	8.9723	0.3385	100.5200	24.6854	11.3238	0.4587	0.7972
	24	100.7633	29.5477	2.2475	0.0761	100.7500	20.3192	-1.6329	-0.0804	-0.0043
	25	102.5633	25.3953	8.5031	0.3348	102.5567	25.1549	11.2675	0.4479	0.7828
	26	102.8033	29.6333	2.9401	0.0992	102.7967	20.3192	-2.1107	-0.1039	-0.0047
	27	103.0533	26.9364	9.2180	0.3422	103.0500	26.3286	11.6048	0.4408	0.7830
	28	103.2933	28.7343	2.4486	0.0852	103.2833	22.0563	-1.7735	-0.0804	0.0048
TRIP-MLC	29	103.8100	34.9415	11.2958	0.3233	103.8033	37.5962	11.7734	0.3132	0.6364
	30	104.0600	38.6658	3.0295	0.0784	104.0533	33.8403	-2.3075	-0.0682	0.0102
	31	104.3067	35.0699	11.9437	0.3406	104.2967	34.1690	13.0944	0.3832	0.7238
	32	104.5533	37.2959	2.8731	0.0770	104.5433	29.8497	-1.6329	-0.0547	0.0223
	33	106.0567	30.8747	10.2457	0.3319	106.0533	32.5727	11.6610	0.3580	0.6899
	34	106.3033	35.7976	2.4486	0.0684	106.2933	29.3333	-1.4643	-0.0499	0.0185
	35	106.5467	37.8953	12.8150	0.3382	106.5433	35.3896	14.1062	0.3986	0.7368
	36	106.7967	40.2497	2.9401	0.0731	106.7833	32.8544	-1.9702	-0.0600	0.0131
LCC EMS-1	37	107.3200	25.9518	9.1510	0.3526	107.3133	27.5962	12.8415	0.4653	0.8180
	38	107.5567	30.6179	2.5827	0.0844	107.5500	22.1502	-1.2957	-0.0585	0.0259
	39	107.8067	25.9946	8.9052	0.3426	107.8000	22.9014	11.1832	0.4883	0.8309
	40	108.0433	27.7925	1.8231	0.0656	108.0400	18.9577	-0.9865	-0.0520	0.0136
	41	109.8400	22.9980	8.0339	0.3493	109.8300	23.8404	10.6492	0.4467	0.7960
	42	110.0767	26.5083	1.8007	0.0679	110.0700	22.6666	-1.3519	-0.0596	0.0083
	43	110.3233	27.2360	9.5308	0.3499	110.3200	25.6244	12.4199	0.4847	0.8346
	44	110.5600	30.7891	2.1135	0.0686	110.5533	20.1314	-1.0989	-0.0546	0.0141
MLC EMS-	45	111.0467	41.4911	12.1001	0.2916	111.0400	36.6103	12.4199	0.3393	0.6309
	46	111.2900	43.6315	1.7113	0.0392	111.2833	34.7793	-1.3800	-0.0397	-0.0005
	47	111.5300	34.8131	10.4691	0.3007	111.5233	31.4460	10.0871	0.3208	0.6215
	48	111.7733	37.6384	1.5103	0.0401	111.7600	26.2347	-1.0989	-0.0419	-0.0018
	49	113.5333	32.2446	10.4915	0.3254	113.5267	30.8826	10.0028	0.3239	0.6493
	50	113.7733	36.5254	2.4263	0.0664	113.7667	27.2676	-1.2395	-0.0455	0.0210
	51	114.0133	36.9963	11.1170	0.3005	114.0067	34.4037	10.8460	0.3153	0.6158
	52	114.2533	38.0665	1.2645	0.0332	114.2433	33.6995	-1.6329	-0.0485	-0.0152
SC EMS-1	53	114.7300	24.2822	8.6818	0.3575	114.7233	30.6479	9.6374	0.3145	0.6720
	54	114.9633	27.4500	2.6720	0.0973	114.9533	25.4366	-2.4480	-0.0962	0.0011
	55	115.2033	27.7069	9.9553	0.3593	115.2000	25.0141	12.7290	0.5089	0.8682
	56	115.4367	30.9603	2.8954	0.0935	115.4300	20.8357	-2.0545	-0.0986	-0.0051
	57	117.1867	24.2822	8.7489	0.3603	117.1767	24.7793	12.2231	0.4933	0.8536
	58	117.4133	27.2788	2.5380	0.0930	117.4133	22.6666	-1.1551	-0.0510	0.0421
	59	117.6567	23.9826	8.5701	0.3574	117.6500	27.6432	12.0545	0.4361	0.7934
	60	117.8833	27.4500	2.3146	0.0843	117.8767	21.5868	-2.1388	-0.0991	-0.0148



CRIB #3										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	71.7733	42.9951	5.8107	0.1352	71.7700	24.7329	8.3291	0.3368	0.4719
	2	72.1433	33.2590	-2.2492	-0.0676	72.1433	33.1930	1.6942	0.0510	-0.0166
	3	73.1667	31.3027	5.2734	0.1685	73.1633	34.0883	9.1545	0.2686	0.4370
	4	73.5333	24.0234	-0.7221	-0.0301	73.5367	41.9665	-1.0995	-0.0262	-0.0563
LOCO 4901	5	74.1967	42.0397	5.4148	0.1288	74.1933	23.8376	7.4402	0.3121	0.4409
	6	74.5633	31.6667	-2.3341	-0.0737	74.5633	34.4912	1.5355	0.0445	-0.0292
	7	75.5867	30.9842	5.8673	0.1894	75.5833	36.8636	9.1862	0.2492	0.4386
	8	75.9533	24.0234	-0.7787	-0.0324	75.9533	42.5932	-1.1312	-0.0266	-0.0590
MC EMS-1	9	76.7333	34.9879	5.0754	0.1451	76.7267	16.4966	5.1862	0.3144	0.4594
	10	76.9700	32.8041	-2.7300	-0.0832	76.9667	18.1080	3.6942	0.2040	0.1208
	11	79.3500	13.3318	2.6150	0.1962	79.3533	35.9236	5.5672	0.1550	0.3511
	12	79.5867	15.0152	3.6331	0.2420	79.5900	36.6398	-5.4169	-0.1478	0.0941
FC EMS-1	13	80.1933	37.7176	5.5845	0.1481	80.1900	16.9442	4.9640	0.2930	0.4410
	14	80.4300	30.2563	-2.6169	-0.0865	80.4300	22.7633	1.9164	0.0842	-0.0023
	15	81.6433	22.2490	6.8854	0.3095	81.6400	33.5959	9.3132	0.2772	0.5867
	16	81.8800	20.9296	0.8899	0.0425	81.8800	34.4912	-1.8931	-0.0549	-0.0124
T-5	17	82.4000	30.5748	3.7745	0.1235	82.3900	12.9603	3.6942	0.2850	0.4085
	18	82.7233	21.1571	-2.4472	-0.1157	82.7233	19.8985	2.0434	0.1027	-0.0130
	19	84.8300	17.6084	3.2655	0.1855	84.8267	23.9272	7.2497	0.3030	0.4884
	20	85.1567	16.6985	0.1263	0.0076	85.1533	25.2253	-1.0677	-0.0423	-0.0348
SC EMS-2	21	85.7733	33.0770	3.7745	0.1141	85.7700	19.3166	5.4085	0.2800	0.3941
	22	86.0100	32.8041	-1.0332	-0.0315	86.0100	19.9880	-0.3693	-0.0185	-0.0500
	23	86.2633	33.0315	2.8413	0.0860	86.2600	22.0471	6.4243	0.2914	0.3774
	24	86.5000	29.9833	-2.5038	-0.0835	86.5000	24.8224	1.4085	0.0567	-0.0268
	25	88.3000	22.5220	7.5075	0.3333	88.3033	29.7015	8.2656	0.2783	0.6116
	26	88.5400	18.1544	-1.8816	-0.1036	88.5433	33.4169	2.7418	0.0821	-0.0216
	27	88.7933	11.7395	5.7824	0.4926	88.7933	37.4455	7.5672	0.2021	0.6947
	28	89.0300	12.8314	1.6252	0.1267	89.0333	36.1026	-4.3693	-0.1210	0.0056
TRIP-MLC	29	89.5500	44.5420	-3.1542	-0.0708	89.5467	25.0910	6.2974	0.2510	0.1802
	30	89.7967	44.9515	-1.2029	-0.0268	89.7933	24.7329	-1.6074	-0.0650	-0.0918
	31	90.0433	45.1335	3.9442	0.0874	90.0400	28.0453	7.3450	0.2619	0.3493
	32	90.2867	38.8550	-2.1078	-0.0543	90.2867	32.8349	-1.1312	-0.0345	-0.0887
	33	91.7867	29.3009	7.7621	0.2649	91.7833	39.6389	9.7259	0.2454	0.5103
	34	92.0300	25.7067	-0.8635	-0.0336	92.0300	44.1599	-1.9249	-0.0436	-0.0772
	35	92.2767	23.1134	10.4204	0.4508	92.2733	47.3381	12.3926	0.2618	0.7126
	36	92.5233	20.7022	0.1546	0.0075	92.5200	49.7552	-2.3058	-0.0463	-0.0389
LCC EMS-1	37	93.0433	32.5311	4.2836	0.1317	93.0367	18.1528	5.5354	0.3049	0.4366
	38	93.2800	26.8441	-1.7968	-0.0669	93.2767	22.2709	1.0910	0.0490	-0.0179
	39	93.5333	33.6685	3.9159	0.1163	93.5233	19.8985	6.4878	0.3261	0.4424
	40	93.7667	28.1635	-2.6169	-0.0929	93.7700	23.9272	2.1704	0.0907	-0.0022
	41	95.5733	22.1125	6.8005	0.3075	95.5667	28.9406	8.8688	0.3065	0.6140
	42	95.8067	18.4729	-0.7787	-0.0422	95.8067	31.2682	0.8370	0.0268	-0.0154
	43	96.0567	10.3746	7.6489	0.7373	96.0567	40.1313	9.5354	0.2376	0.9749
	44	96.2967	12.2399	1.2010	0.0981	96.2967	37.1322	-3.0360	-0.0818	0.0164
MLC EMS-	45	96.7900	45.8159	-3.3805	-0.0738	96.7867	27.0605	2.1704	0.0802	0.0064
	46	97.0333	43.8596	-1.2029	-0.0274	97.0333	28.7615	-0.4963	-0.0173	-0.0447
	47	97.2800	42.6767	-2.8431	-0.0666	97.2800	29.1196	4.6783	0.1607	0.0940
	48	97.5267	40.9478	-2.4189	-0.0591	97.5267	31.2682	1.3767	0.0440	-0.0150
	49	99.3367	26.4801	1.2575	0.0475	99.3333	40.8475	5.0910	0.1246	0.1721
	50	99.5833	24.6603	-1.1463	-0.0465	99.5833	41.5189	0.9640	0.0232	-0.0233
	51	99.8300	23.8869	1.4555	0.0609	99.8300	45.0999	2.8370	0.0629	0.1238
	52	100.0800	23.2954	0.3526	0.0151	100.0800	45.5028	-2.9725	-0.0653	-0.0502
SC EMS-1	53	100.5767	37.4901	5.5279	0.1475	100.5700	14.9299	3.5355	0.2368	0.3843
	54	100.8133	33.8960	0.7768	0.0229	100.8167	17.8394	-0.7185	-0.0403	-0.0174
	55	101.0700	32.3946	3.9725	0.1226	101.0633	21.6890	7.9481	0.3665	0.4891
	56	101.3067	28.8004	-2.8149	-0.0977	101.3100	24.8672	2.2339	0.0898	-0.0079
	57	103.1433	20.7477	7.9317	0.3823	103.1367	31.1787	11.4085	0.3659	0.7482
	58	103.3767	16.8805	-1.5422	-0.0914	103.3767	33.7750	4.1704	0.1235	0.0321
	59	103.6367	13.6048	8.3842	0.6163	103.6300	35.3864	6.4243	0.1816	0.7978
	60	103.8700	14.6512	1.7949	0.1225	103.8733	32.7454	-4.0519	-0.1237	-0.0012



WR28_RN001		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	82.4425	34.1423	12.4777	0.3655	82.4550	34.9047	13.3533	0.3826	0.7480
	2	82.7850	28.8815	-1.1346	-0.0393	82.8000	38.2679	2.9149	0.0762	0.0369
	3	83.7350	35.0265	10.3613	0.2958	83.7425	30.2858	11.3700	0.3754	0.6712
	4	84.0725	29.4120	-1.1346	-0.0386	84.0875	35.3979	2.5235	0.0713	0.0327
LOCO 4901	5	84.6850	33.4350	12.8144	0.3833	84.6875	33.9630	13.3794	0.3939	0.7772
	6	85.0200	26.2732	-0.9422	-0.0359	85.0350	38.8957	2.7062	0.0696	0.0337
	7	85.9700	33.8771	12.1651	0.3591	85.9775	34.0078	12.9880	0.3819	0.7410
	8	86.3075	29.2352	-0.9422	-0.0322	86.3200	35.9809	3.0715	0.0854	0.0531
MC EMS-1	9	87.0200	21.8081	8.3892	0.3847	87.0300	31.0033	11.3961	0.3676	0.7523
	10	87.2400	21.8081	2.3767	0.1090	87.2575	28.8060	-1.4953	-0.0519	0.0571
	11	89.4475	26.6268	7.6437	0.2871	89.4550	26.7432	10.4045	0.3891	0.6761
	12	89.6700	25.0795	1.2945	0.0516	89.6825	27.9989	-0.8690	-0.0310	0.0206
FC EMS-1	13	90.2250	25.0795	10.5537	0.4208	90.2350	31.9002	11.8137	0.3703	0.7911
	14	90.4425	19.1556	-0.3650	-0.0191	90.4575	33.6939	1.5057	0.0447	0.0256
	15	91.5725	27.0689	7.2108	0.2664	91.5800	27.3711	10.3001	0.3763	0.6427
	16	91.7925	27.2458	0.8856	0.0325	91.8100	28.2231	1.0360	0.0367	0.0692
T-5	17	92.2725	23.0017	7.8120	0.3396	92.2850	20.7791	7.1947	0.3462	0.6859
	18	92.5750	19.4208	-0.7979	-0.0411	92.5900	21.6760	0.6446	0.0297	-0.0113
	19	94.5350	22.3386	5.3108	0.2377	94.5450	20.1065	7.2208	0.3591	0.5969
	20	94.8375	19.6419	-0.7979	-0.0406	94.8525	22.1693	0.9316	0.0420	0.0014
SC EMS-2	21	95.4125	23.2228	9.4715	0.4079	95.4200	32.1244	12.4139	0.3864	0.7943
	22	95.6325	24.8585	1.8236	0.0734	95.6450	27.8195	-0.5819	-0.0209	0.0524
	23	95.8700	25.1680	11.2993	0.4490	95.8775	30.9585	11.5788	0.3740	0.8230
	24	96.0900	23.5765	1.6552	0.0702	96.1000	30.5997	0.5663	0.0185	0.0887
	25	97.7650	20.9681	8.4614	0.4035	97.7750	28.4921	10.8481	0.3807	0.7843
	26	97.9900	20.8355	0.9337	0.0448	97.9975	26.9226	0.9316	0.0346	0.0794
	27	98.2225	28.1741	11.2993	0.4011	98.2275	27.0123	10.4828	0.3881	0.7891
	28	98.4425	24.7701	0.0679	0.0027	98.4525	29.2993	1.0360	0.0354	0.0381
TRIP-MLC	29	98.9275	31.6224	10.8423	0.3429	98.9375	41.1379	15.3105	0.3722	0.7151
	30	99.1575	31.6666	-1.0384	-0.0328	99.1700	38.9405	2.3930	0.0615	0.0287
	31	99.3825	32.1087	11.9486	0.3721	99.3925	40.0616	15.7281	0.3926	0.7647
	32	99.6100	31.2687	0.7173	0.0229	99.6250	38.5370	0.1227	0.0032	0.0261
	33	101.0025	27.7763	8.7019	0.3133	101.0125	34.7701	13.0402	0.3750	0.6883
	34	101.2350	28.7489	-1.0384	-0.0361	101.2450	33.6042	1.3492	0.0402	0.0040
	35	101.4625	36.8832	11.6841	0.3168	101.4725	39.9271	15.4671	0.3874	0.7042
	36	101.6850	36.6622	1.0540	0.0288	101.6975	39.0302	0.7229	0.0185	0.0473
LCC EMS-1	37	102.1775	22.2060	10.0487	0.4525	102.1850	29.3441	11.8920	0.4053	0.8578
	38	102.3925	20.7471	1.1021	0.0531	102.4075	29.0302	0.7751	0.0267	0.0798
	39	102.6275	23.3554	10.6740	0.4570	102.6350	30.0168	11.4744	0.3823	0.8393
	40	102.8500	22.9133	2.3046	0.1006	102.8600	28.3576	-0.9995	-0.0353	0.0653
	41	104.5075	20.7029	7.9563	0.3843	104.5150	26.3397	10.3262	0.3920	0.7764
	42	104.7200	20.2608	0.3565	0.0176	104.7375	25.6222	0.2531	0.0099	0.0275
	43	104.9475	25.8311	10.6980	0.4142	104.9600	28.9406	11.0830	0.3830	0.7971
	44	105.1725	25.6543	1.8957	0.0739	105.1825	29.3441	-1.1561	-0.0394	0.0345
MLC EMS-	45	105.6200	30.3404	8.7740	0.2892	105.6275	44.0975	12.4139	0.2815	0.5707
	46	105.8400	29.3236	0.2603	0.0089	105.8550	43.7387	0.7229	0.0165	0.0254
	47	106.0650	30.6056	11.5157	0.3763	106.0725	40.7343	12.9880	0.3189	0.6951
	48	106.2875	27.9973	0.4287	0.0153	106.3000	41.0033	-1.3648	-0.0333	-0.0180
	49	107.9125	25.6985	6.7298	0.2619	107.9225	35.3083	12.3356	0.3494	0.6113
	50	108.1350	25.4774	-1.0143	-0.0398	108.1475	34.8598	2.4452	0.0701	0.0303
	51	108.3575	36.7506	10.1689	0.2767	108.3650	38.6715	11.4222	0.2954	0.5721
	52	108.5750	38.9610	1.4628	0.0376	108.5900	37.7298	-1.2343	-0.0327	0.0048
SC EMS-1	53	109.0250	25.8753	9.0867	0.3512	109.0300	27.1917	10.9525	0.4028	0.7540
	54	109.2325	25.3448	-0.5093	-0.0201	109.2475	25.7119	0.6968	0.0271	0.0070
	55	109.4575	23.0459	9.2791	0.4026	109.4650	32.7971	13.1446	0.4008	0.8034
	56	109.6750	26.4058	3.3387	0.1264	109.6825	29.9719	-1.7302	-0.0577	0.0687
	57	111.2975	23.2228	8.4373	0.3633	111.3075	26.1603	10.4045	0.3977	0.7610
	58	111.5125	24.3280	1.3185	0.0542	111.5225	24.0078	0.7229	0.0301	0.0843
	59	111.7350	25.8753	10.2892	0.3977	111.7425	28.4024	11.0569	0.3893	0.7869
	60	111.9450	25.0353	2.2084	0.0882	111.9600	28.7612	-1.0517	-0.0366	0.0516

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	79.6875	33.3144	11.8012	0.3542	79.6800	35.5903	17.8534	0.5016	0.8559
	2	80.0275	39.1791	2.8200	0.0720	80.0175	27.6561	-2.3546	-0.0851	-0.0132
	3	80.9650	31.9017	10.9299	0.3426	80.9625	36.2476	16.1670	0.4460	0.7886
	4	81.3100	32.8863	1.7253	0.0525	81.2975	30.8955	-2.1297	-0.0689	-0.0165
LOCO 4901	5	81.9125	33.5713	11.8236	0.3522	81.9075	34.4166	17.7410	0.5155	0.8677
	6	82.2575	39.8213	2.4626	0.0618	82.2450	25.2148	-1.4552	-0.0577	0.0041
	7	83.2000	35.4548	12.2481	0.3455	83.1950	32.8204	17.4599	0.5320	0.8774
	8	83.5425	33.9993	2.5296	0.0744	83.5325	32.2570	-1.9330	-0.0599	0.0145
MC EMS-1	9	84.2575	26.6791	8.8745	0.3326	84.2500	25.1678	11.6420	0.4626	0.7952
	10	84.4775	27.0644	1.5242	0.0563	84.4700	23.1021	-0.5558	-0.0241	0.0323
	11	86.6750	25.7374	9.2990	0.3613	86.6725	25.7312	11.5577	0.4492	0.8105
	12	86.8975	26.7220	1.6583	0.0621	86.8925	25.1678	-1.2865	-0.0511	0.0109
FC EMS-1	13	87.4475	29.7185	9.7905	0.3294	87.4450	26.7171	14.3121	0.5357	0.8651
	14	87.6725	32.9720	2.1498	0.0652	87.6650	20.5199	-0.7806	-0.0380	0.0272
	15	88.7875	21.7134	7.5117	0.3460	88.7825	33.7124	9.9838	0.2962	0.6421
	16	89.0125	26.7648	1.5019	0.0561	89.0025	28.7359	-2.0454	-0.0712	-0.0151
T-5	17	89.4850	20.2579	6.7298	0.3322	89.4775	23.9472	9.6184	0.4017	0.7339
	18	89.7925	20.9000	1.4796	0.0708	89.7825	20.6608	-1.9049	-0.0922	-0.0214
	19	91.7500	20.3007	7.0202	0.3458	91.7500	22.2101	9.5903	0.4318	0.7776
	20	92.0600	20.4720	1.3902	0.0679	92.0475	20.9425	-1.8205	-0.0869	-0.0190
SC EMS-2	21	92.6325	25.4377	8.5394	0.3357	92.6275	30.6608	10.0681	0.3284	0.6641
	22	92.8575	29.7613	1.8817	0.0632	92.8500	26.1537	-1.6519	-0.0632	0.0001
	23	93.0900	26.2083	9.0309	0.3446	93.0875	26.0598	11.2486	0.4316	0.7762
	24	93.3150	29.5473	1.8817	0.0637	93.3075	21.1303	-1.0898	-0.0516	0.0121
	25	94.9925	25.6089	8.6958	0.3396	94.9875	25.3087	10.9956	0.4345	0.7740
	26	95.2150	29.0336	2.6860	0.0925	95.2075	21.0364	-1.7081	-0.0812	0.0113
	27	95.4475	26.4651	9.2990	0.3514	95.4425	27.2335	12.3728	0.4543	0.8057
	28	95.6700	27.9206	2.3285	0.0834	95.6625	22.6326	-1.5395	-0.0680	0.0154
TRIP-MLC	29	96.1400	34.0422	10.8852	0.3198	96.1350	39.2054	11.7826	0.3005	0.6203
	30	96.3700	37.9377	2.9541	0.0779	96.3625	34.1819	-2.3546	-0.0689	0.0090
	31	96.6000	33.9993	12.0470	0.3543	96.5950	34.8861	14.5369	0.4167	0.7710
	32	96.8300	36.3110	2.5073	0.0691	96.8225	30.1443	-1.6238	-0.0539	0.0152
	33	98.2300	30.0610	10.0139	0.3331	98.2250	33.7124	12.2604	0.3637	0.6968
	34	98.4625	35.4548	2.5743	0.0726	98.4525	29.2523	-1.5114	-0.0517	0.0209
	35	98.6900	38.3230	12.8289	0.3348	98.6875	36.4354	14.1716	0.3890	0.7237
	36	98.9200	39.5644	2.9541	0.0747	98.9150	32.4917	-1.7924	-0.0552	0.0195
LCC EMS-1	37	99.4100	23.6826	8.2490	0.3483	99.4050	29.3932	11.2767	0.3837	0.7320
	38	99.6325	28.7339	2.9541	0.1028	99.6250	23.4777	-1.8768	-0.0799	0.0229
	39	99.8650	24.9240	8.6288	0.3462	99.8625	24.3697	11.8669	0.4870	0.8332
	40	100.0875	28.0918	1.6583	0.0590	100.0850	18.9706	-0.6682	-0.0352	0.0238
	41	101.7575	22.9548	8.0256	0.3496	101.7525	23.8063	10.1243	0.4253	0.7749
	42	101.9800	28.3487	1.5689	0.0553	101.9700	20.6608	-1.1741	-0.0568	-0.0015
	43	102.2075	28.6483	9.9022	0.3457	102.2075	24.0880	12.7101	0.5277	0.8733
	44	102.4300	30.7459	1.6359	0.0532	102.4250	20.4260	-1.1741	-0.0575	-0.0043
MLC EMS-	45	102.8825	40.4634	11.6225	0.2872	102.8775	37.6091	12.0917	0.3215	0.6088
	46	103.1100	42.2185	1.6583	0.0393	103.1000	35.2148	-1.3428	-0.0381	0.0012
	47	103.3350	33.5713	10.0586	0.2996	103.3275	31.5528	9.5622	0.3031	0.6027
	48	103.5625	36.9531	1.3008	0.0352	103.5525	27.4683	-1.0898	-0.0397	-0.0045
	49	105.2025	31.4737	10.0586	0.3196	105.1975	31.9284	9.8714	0.3092	0.6288
	50	105.4275	36.3538	2.3285	0.0641	105.4200	27.5622	-1.1741	-0.0426	0.0214
	51	105.6500	36.0541	10.6618	0.2957	105.6450	35.3556	10.4616	0.2959	0.5916
	52	105.8750	37.5096	1.0551	0.0281	105.8675	34.1819	-1.5395	-0.0450	-0.0169
SC EMS-1	53	106.3175	23.4257	8.5394	0.3645	106.3125	30.1443	9.9557	0.3303	0.6948
	54	106.5375	27.4069	2.6190	0.0956	106.5325	25.7312	-2.6356	-0.1024	-0.0069
	55	106.7650	27.1500	9.7905	0.3606	106.7550	24.5575	12.0355	0.4901	0.8507
	56	106.9825	30.5319	2.5519	0.0836	106.9750	21.1303	-1.8487	-0.0875	-0.0039
	57	108.6150	24.5815	8.8969	0.3619	108.6075	25.3087	11.2767	0.4456	0.8075
	58	108.8275	27.4925	2.3509	0.0855	108.8225	23.0551	-1.0336	-0.0448	0.0407
	59	109.0525	24.4959	8.5841	0.3504	109.0450	28.0786	12.3728	0.4407	0.7911
	60	109.2675	26.5935	2.1498	0.0808	109.2600	22.3979	-2.3546	-0.1051	-0.0243

CRIB #3										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	66.6525	42.5307	6.5017	0.1529	66.6475	24.3643	8.4254	0.3458	0.4987
	2	66.9875	34.9329	-2.0956	-0.0600	66.9875	32.1978	1.2508	0.0389	-0.0211
	3	67.9275	32.0667	5.6533	0.1763	67.9200	33.8988	9.3778	0.2766	0.4529
	4	68.2625	24.0594	-0.9078	-0.0377	68.2600	41.9561	-1.0032	-0.0239	-0.0616
LOCO 4901	5	68.8675	41.9848	5.8512	0.1394	68.8650	24.0510	7.7270	0.3213	0.4606
	6	69.2025	32.0212	-2.2936	-0.0716	69.2050	34.0331	1.4730	0.0433	-0.0284
	7	70.1375	31.9757	6.3037	0.1971	70.1350	36.6293	9.0286	0.2465	0.4436
	8	70.4750	24.8328	-0.9078	-0.0366	70.4775	42.0008	-1.0984	-0.0262	-0.0627
MC EMS-1	9	71.1875	34.5689	4.4089	0.1275	71.1825	16.0385	4.7429	0.2957	0.4233
	10	71.4050	34.3869	-3.0288	-0.0881	71.4000	17.6499	3.5048	0.1986	0.1105
	11	73.5800	17.2350	3.7585	0.2181	73.5850	32.1531	3.5048	0.1090	0.3271
	12	73.7925	14.4142	4.0130	0.2784	73.8000	38.5989	-5.4159	-0.1403	0.1381
FC EMS-1	13	74.3500	37.1167	4.2958	0.1157	74.3475	17.6947	4.9968	0.2824	0.3981
	14	74.5675	29.8374	-2.4067	-0.0807	74.5675	23.1110	1.8540	0.0802	-0.0004
	15	75.6775	20.7382	5.7381	0.2767	75.6725	34.3017	8.9968	0.2623	0.5390
	16	75.8925	19.8283	0.6759	0.0341	75.8950	35.6445	-1.5111	-0.0424	-0.0083
T-5	17	76.3675	29.7464	3.5888	0.1207	76.3625	14.2480	3.9492	0.2772	0.3978
	18	76.6650	21.5116	-2.4350	-0.1132	76.6650	19.6195	1.6952	0.0864	-0.0268
	19	78.5875	18.1904	3.2777	0.1802	78.5825	22.9319	7.0921	0.3093	0.4895
	20	78.8875	16.2341	0.2800	0.0173	78.8850	25.5282	-1.2889	-0.0505	-0.0332
SC EMS-2	21	79.4550	33.5225	3.0232	0.0902	79.4550	19.7090	5.1238	0.2600	0.3501
	22	79.6725	32.2031	0.0255	0.0008	79.6750	20.1566	-0.4952	-0.0246	-0.0238
	23	79.9050	32.9311	2.0899	0.0635	79.9000	22.2605	6.3619	0.2858	0.3493
	24	80.1250	30.5198	-2.4350	-0.0798	80.1250	24.9015	1.2191	0.0490	-0.0308
	25	81.7900	23.1040	6.2189	0.2692	81.7875	29.3778	7.6317	0.2598	0.5290
	26	82.0100	20.1922	-1.5583	-0.0772	82.0075	32.6454	1.3778	0.0422	-0.0350
	27	82.2450	11.5480	4.4089	0.3818	82.2425	38.4198	6.6794	0.1739	0.5556
	28	82.4650	12.3214	1.7506	0.1421	82.4650	36.1369	-4.4317	-0.1226	0.0194
TRIP-MLC	29	82.9225	45.0785	-3.6510	-0.0810	82.9150	25.3491	6.1714	0.2435	0.1625
	30	83.1475	45.3970	-1.2472	-0.0275	83.1475	25.3044	-1.6064	-0.0635	-0.0910
	31	83.3750	44.3960	3.3060	0.0745	83.3700	27.9454	6.7111	0.2402	0.3146
	32	83.6025	39.3005	-1.6714	-0.0425	83.6000	32.3321	-1.1619	-0.0359	-0.0785
	33	84.9900	31.0202	7.6895	0.2479	84.9900	38.8227	9.9175	0.2555	0.5034
	34	85.2200	26.6981	-1.1906	-0.0446	85.2175	42.7618	-1.8921	-0.0443	-0.0889
	35	85.4450	25.5152	10.0650	0.3945	85.4450	45.0447	11.3778	0.2526	0.6471
	36	85.6725	21.9666	0.2517	0.0115	85.6750	49.0734	-2.8127	-0.0573	-0.0459
LCC EMS-1	37	86.1250	32.2941	3.5888	0.1111	86.1200	17.6947	4.9333	0.2788	0.3899
	38	86.3400	26.7436	-1.6431	-0.0614	86.3475	22.5738	0.9968	0.0442	-0.0173
	39	86.5800	33.4770	2.8818	0.0861	86.5725	20.6043	6.2667	0.3041	0.3902
	40	86.7975	28.4725	-2.4915	-0.0875	86.7975	23.9167	1.8857	0.0788	-0.0087
	41	88.4750	22.5125	6.1906	0.2750	88.4725	29.0644	8.3619	0.2877	0.5627
	42	88.6975	19.8738	-0.5967	-0.0300	88.6950	30.1835	-0.4635	-0.0154	-0.0454
	43	88.9300	10.7746	6.1906	0.5746	88.9300	40.4789	7.9492	0.1964	0.7709
	44	89.1500	10.8656	1.3546	0.1247	89.1525	38.8227	-3.7968	-0.0978	0.0269
MLC EMS-	45	89.6075	45.8974	-3.4248	-0.0746	89.6075	26.6472	1.9175	0.0720	-0.0027
	46	89.8350	43.9866	-0.9927	-0.0226	89.8350	28.0796	-0.6222	-0.0222	-0.0447
	47	90.0650	43.6226	-3.0288	-0.0694	90.0625	28.9749	4.4889	0.1549	0.0855
	48	90.2925	41.3023	-2.3218	-0.0562	90.2925	30.6311	1.2508	0.0408	-0.0154
	49	91.9700	27.1076	-1.9259	-0.0711	91.9675	41.3742	4.3619	0.1054	0.0344
	50	92.2000	25.2423	-1.2189	-0.0483	92.2000	41.4189	0.8698	0.0210	-0.0273
	51	92.4300	24.2414	1.3264	0.0547	92.4275	44.1495	2.5206	0.0571	0.1118
	52	92.6550	23.6954	0.3083	0.0130	92.6600	45.2238	-2.9079	-0.0643	-0.0513
SC EMS-1	53	93.1200	37.7991	5.7098	0.1511	93.1150	14.3375	3.3143	0.2312	0.3822
	54	93.3400	34.7054	0.9304	0.0268	93.3400	18.0080	-0.8762	-0.0487	-0.0219
	55	93.5800	32.5216	3.4191	0.1051	93.5750	22.0367	7.8540	0.3564	0.4615
	56	93.8000	28.8819	-2.7743	-0.0961	93.7975	24.9015	2.1079	0.0847	-0.0114
	57	95.4975	21.1021	-7.4632	-0.3537	95.5000	31.0787	11.1555	0.3589	0.7126
	58	95.7250	17.5990	-1.8128	-0.1030	95.7250	35.1969	3.5683	0.1014	-0.0016
	59	95.9550	14.6872	6.8693	0.4677	95.9575	34.0778	5.3460	0.1569	0.6246
	60	96.1800	14.5962	1.6092	0.1102	96.1825	32.9588	-4.2095	-0.1277	-0.0175

WR29_RN001		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	72.6450	35.4575	13.4115	0.3782	72.6550	32.9899	13.1459	0.3985	0.7767
	2	72.9400	31.5229	-1.1388	-0.0361	72.9500	34.2903	2.0812	0.0607	0.0246
	3	73.7650	37.8890	11.5115	0.3038	73.7725	28.5056	11.1626	0.3916	0.6954
	4	74.0575	31.3461	-1.3793	-0.0440	74.0700	34.6491	2.0029	0.0578	0.0138
LOCO 4901	5	74.5900	34.5291	12.9305	0.3745	74.6000	32.2275	13.3285	0.4136	0.7881
	6	74.8850	28.6052	-1.2831	-0.0449	74.8975	35.7253	2.1334	0.0597	0.0149
	7	75.7100	35.4133	13.1229	0.3706	75.7175	32.0930	12.9632	0.4039	0.7745
	8	76.0050	31.1251	-1.5957	-0.0513	76.0150	35.5011	2.6031	0.0733	0.0220
MC EMS-1	9	76.6275	22.5928	9.9242	0.4393	76.6350	30.3441	12.2325	0.4031	0.8424
	10	76.8200	23.7422	2.9978	0.1263	76.8300	27.2500	-2.3030	-0.0845	0.0418
	11	78.7375	26.7926	8.4091	0.3139	78.7450	25.5908	10.4580	0.4087	0.7225
	12	78.9325	29.0473	2.4447	0.0842	78.9425	22.4518	-1.3635	-0.0607	0.0234
FC EMS-1	13	79.4175	28.6494	11.9925	0.4186	79.4250	28.1020	11.0582	0.3935	0.8121
	14	79.6050	22.5928	2.0839	0.0922	79.6175	32.1379	0.9590	0.0298	0.1221
	15	80.5900	30.1967	8.2167	0.2721	80.5900	23.7074	9.5968	0.4048	0.6769
	16	80.7775	33.3797	2.9257	0.0877	80.7900	23.5280	0.0979	0.0042	0.0918
T-5	17	81.1925	23.3886	9.2749	0.3966	81.2025	21.6446	8.5530	0.3952	0.7917
	18	81.4550	19.6750	-0.4413	-0.0224	81.4700	21.5549	0.5676	0.0263	0.0039
	19	83.1575	22.2833	7.1104	0.3191	83.1675	19.7612	7.9789	0.4038	0.7229
	20	83.4200	19.3656	-0.8021	-0.0414	83.4300	22.9002	1.0373	0.0453	0.0039
SC EMS-2	21	83.9125	22.9465	9.0344	0.3937	83.9225	31.7791	12.1542	0.3825	0.7762
	22	84.1075	28.0747	2.3244	0.0828	84.1175	25.3217	-0.8938	-0.0353	0.0475
	23	84.3075	26.6600	11.7039	0.4390	84.3175	28.5953	10.7189	0.3749	0.8139
	24	84.5025	24.8917	2.6130	0.1050	84.5125	29.6267	-0.0065	-0.0002	0.1048
	25	85.9525	21.4434	8.3129	0.3877	85.9675	26.9361	10.3536	0.3844	0.7721
	26	86.1475	23.4328	1.6751	0.0715	86.1600	23.4383	0.0457	0.0020	0.0734
	27	86.3500	27.8978	10.6217	0.3807	86.3575	27.4742	10.6928	0.3892	0.7699
	28	86.5425	28.7820	3.4548	0.1200	86.5500	26.4876	-0.7372	-0.0278	0.0922
	TRIP-MLC	29	86.9550	31.1693	10.8862	0.3493	86.9675	38.5056	14.2941	0.3712
30		87.1575	33.1587	-0.9223	-0.0278	87.1675	37.3397	1.8724	0.0501	0.0223
31		87.3550	34.7944	11.8482	0.3405	87.3600	40.2993	15.0770	0.3741	0.7146
32		87.5550	32.0535	1.1700	0.0365	87.5625	36.3979	-0.7894	-0.0217	0.0148
33		88.7600	29.9314	9.2027	0.3075	88.7675	34.3800	12.8588	0.3740	0.6815
34		88.9575	29.7546	0.8093	0.0272	88.9700	32.4518	0.7242	0.0223	0.0495
35		89.1550	38.4195	11.6318	0.3028	89.1650	38.4607	14.7377	0.3832	0.6860
36		89.3550	39.9668	2.0599	0.0515	89.3650	36.0392	-0.9460	-0.0263	0.0253
LCC EMS-1		37	89.7800	23.3444	10.5736	0.4529	89.7875	28.1020	10.9799	0.3907
	38	89.9675	22.7696	1.5067	0.0662	89.9775	26.0392	0.0457	0.0018	0.0679
	39	90.1700	25.1569	11.2470	0.4471	90.1775	27.7881	10.5102	0.3782	0.8253
	40	90.3600	23.7422	2.7814	0.1172	90.3700	28.4159	-1.3374	-0.0471	0.0701
	41	91.8100	20.4708	8.3129	0.4061	91.8150	25.7702	9.9361	0.3856	0.7917
	42	91.9975	21.7528	1.2422	0.0571	92.0100	23.5280	-0.6328	-0.0269	0.0302
	43	92.2000	27.8978	11.1027	0.3980	92.2050	27.2051	10.1187	0.3719	0.7699
	44	92.3900	29.4894	3.7674	0.1278	92.3975	26.6670	-1.6506	-0.0619	0.0659
	MLC EMS-	45	92.7800	31.6114	9.2508	0.2926	92.7900	42.7208	12.1281	0.2839
46		92.9775	31.3019	0.5688	0.0182	92.9875	42.2275	-0.8416	-0.0199	-0.0018
47		93.1725	33.2471	11.4875	0.3455	93.1800	39.8060	12.0498	0.3027	0.6482
48		93.3675	31.1693	1.5789	0.0507	93.3775	38.7746	-1.7289	-0.0446	0.0061
49		94.7950	27.9863	7.4471	0.2661	94.8075	34.7836	11.9715	0.3442	0.6103
50		94.9925	27.4115	-0.9704	-0.0354	95.0025	33.7971	1.9246	0.0570	0.0216
51		95.1900	38.8616	10.0445	0.2585	95.1975	36.2634	10.1970	0.2812	0.5397
52		95.3850	40.5857	1.8675	0.0460	95.3950	34.6491	-1.6506	-0.0476	-0.0016
SC EMS-1		53	95.7775	25.3337	8.9141	0.3519	95.7825	27.1154	10.8494	0.4001
	54	95.9650	25.9969	-0.4173	-0.0161	95.9725	25.1424	0.5937	0.0236	0.0076
	55	96.1625	23.1233	9.1306	0.3949	96.1700	32.1379	12.8066	0.3985	0.7934
	56	96.3550	27.0579	3.9358	0.1455	96.3625	29.3128	-2.3552	-0.0804	0.0651
	57	97.7925	22.3276	8.3850	0.3756	97.8025	24.9181	9.8056	0.3935	0.7691
	58	97.9900	23.9191	1.3143	0.0550	97.9975	23.3038	0.5676	0.0244	0.0793
	59	98.1875	26.7926	10.5255	0.3929	98.1925	26.3083	10.1448	0.3856	0.7785
	60	98.3725	26.9695	2.9257	0.1085	98.3875	26.9809	-1.3113	-0.0486	0.0599

CRIB #2										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	70.2325	30.7898	11.1723	0.3629	70.2250	37.8791	18.9305	0.4998	0.8626
	2	70.5300	39.1802	2.6826	0.0685	70.5200	26.9871	-2.1487	-0.0796	-0.0111
	3	71.3525	30.1905	10.9936	0.3641	71.3500	35.5786	17.8063	0.5005	0.8646
	4	71.6525	31.1751	1.7890	0.0574	71.6425	33.5598	-2.4016	-0.0716	-0.0142
LOCO 4901	5	72.1775	30.9182	11.2617	0.3642	72.1750	36.6584	18.5371	0.5057	0.8699
	6	72.4775	39.9079	2.9284	0.0734	72.4675	24.5457	-2.2330	-0.0910	-0.0176
	7	73.3000	33.4867	12.0660	0.3603	73.2975	35.3908	19.8018	0.5595	0.9198
	8	73.6000	33.4867	2.1241	0.0634	73.5875	33.1842	-2.3735	-0.0715	-0.0081
MC EMS-1	9	74.2175	26.8086	9.8542	0.3676	74.2175	24.8744	13.2813	0.5339	0.9015
	10	74.4125	26.5946	1.0517	0.0396	74.4025	24.0763	-1.1088	-0.0461	-0.0065
	11	76.3225	25.1819	9.5191	0.3780	76.3225	25.7664	12.5225	0.4860	0.8640
	12	76.5200	25.9097	1.7443	0.0673	76.5075	24.8274	-2.0644	-0.0832	-0.0158
FC EMS-1	13	77.0000	29.0775	10.3904	0.3573	76.9975	27.5035	17.1318	0.6229	0.9802
	14	77.1925	32.9730	2.5039	0.0759	77.1850	20.6960	-1.5304	-0.0739	0.0020
	15	78.1675	20.4302	7.3073	0.3577	78.1650	35.3439	11.3420	0.3209	0.6786
	16	78.3625	24.6254	1.6103	0.0654	78.3525	29.8509	-2.2611	-0.0758	-0.0104
T-5	17	78.7725	17.2196	6.5253	0.3790	78.7700	26.7054	11.5107	0.4310	0.8100
	18	79.0400	20.8583	1.4315	0.0686	79.0325	20.5551	-2.4859	-0.1209	-0.0523
	19	80.7425	18.8035	6.7488	0.3589	80.7350	23.7946	11.0610	0.4649	0.8238
	20	81.0075	20.0021	1.2975	0.0649	80.9975	21.4002	-2.4859	-0.1162	-0.0513
SC EMS-2	21	81.5050	24.4542	8.2233	0.3363	81.4975	31.8697	10.3583	0.3250	0.6613
	22	81.6975	28.3497	2.1911	0.0773	81.6900	25.8134	-2.0644	-0.0800	-0.0027
	23	81.9025	24.5398	8.4020	0.3424	81.8975	26.6115	11.3420	0.4262	0.7686
	24	82.0950	27.8360	1.4762	0.0530	82.0825	22.3392	-1.5022	-0.0673	-0.0142
	25	83.5525	23.5980	8.2009	0.3475	83.5475	26.0950	11.5669	0.4433	0.7908
	26	83.7450	28.6066	2.7720	0.0969	83.7350	21.3063	-2.4859	-0.1167	-0.0198
	27	83.9450	24.8395	8.7595	0.3526	83.9400	28.5364	12.8035	0.4487	0.8013
	28	84.1375	26.8943	2.0347	0.0757	84.1350	23.6068	-2.4297	-0.1029	-0.0273
TRIP-MLC	29	84.5425	31.1751	10.2117	0.3276	84.5375	41.6349	12.6630	0.3041	0.6317
	30	84.7450	36.5689	2.7273	0.0746	84.7375	37.2218	-2.7951	-0.0751	-0.0005
	31	84.9425	32.8018	11.4404	0.3488	84.9350	36.6584	13.9277	0.3799	0.7287
	32	85.1425	35.2847	1.9230	0.0545	85.1350	32.0105	-1.9800	-0.0619	-0.0074
	33	86.3550	28.4354	9.5191	0.3348	86.3500	35.0152	12.6630	0.3616	0.6964
	34	86.5550	33.8292	2.1688	0.0641	86.5475	32.1983	-1.8676	-0.0580	0.0061
	35	86.7550	34.5997	11.9766	0.3462	86.7475	38.9589	15.1363	0.3885	0.7347
	36	86.9525	37.7675	2.6156	0.0693	86.9450	33.5129	-2.5703	-0.0767	-0.0074
LCC EMS-1	37	87.3750	21.4148	7.7988	0.3642	87.3700	31.4002	12.4100	0.3952	0.7594
	38	87.5675	26.0381	2.6826	0.1030	87.5575	26.3298	-1.6147	-0.0613	0.0417
	39	87.7700	22.5278	8.0669	0.3581	87.7600	25.9542	12.6349	0.4868	0.8449
	40	87.9650	27.1511	1.6103	0.0593	87.9575	19.2875	-1.2212	-0.0633	-0.0040
	41	89.4175	22.2710	8.0445	0.3612	89.4150	24.8274	11.3982	0.4591	0.8203
	42	89.6075	26.9371	1.6549	0.0614	89.5975	21.4472	-1.7833	-0.0832	-0.0217
	43	89.8100	26.0381	9.1616	0.3519	89.8050	27.0810	13.4218	0.4956	0.8475
	44	90.0000	27.9645	1.7443	0.0624	89.9900	23.4190	-2.0363	-0.0870	-0.0246
MLC EMS-	45	90.3925	38.1956	10.9713	0.2872	90.3875	40.4143	12.7754	0.3161	0.6034
	46	90.5900	40.2504	1.4315	0.0356	90.5850	37.4096	-1.6147	-0.0432	-0.0076
	47	90.7850	31.3891	9.2957	0.2961	90.7775	34.6866	10.1054	0.2913	0.5875
	48	90.9850	34.9850	0.6943	0.0198	90.9750	29.7101	-1.0526	-0.0354	-0.0156
	49	92.4150	29.1203	9.2957	0.3192	92.4125	34.5457	10.4426	0.3023	0.6215
	50	92.6150	35.0278	2.0124	0.0575	92.6075	29.4753	-1.5866	-0.0538	0.0036
	51	92.8075	33.8720	9.8319	0.2903	92.8000	36.9401	10.1897	0.2758	0.5661
	52	93.0075	35.5415	0.9847	0.0277	93.0000	35.2030	-1.6990	-0.0483	-0.0206
SC EMS-1	53	93.3975	22.3138	8.0892	0.3625	93.3925	31.7758	10.8080	0.3401	0.7027
	54	93.5875	25.1391	2.4145	0.0961	93.5825	27.2688	-2.8513	-0.1046	-0.0085
	55	93.7875	24.2830	9.0499	0.3727	93.7800	27.9260	11.0891	0.3971	0.7698
	56	93.9775	30.2333	2.5486	0.0843	93.9700	21.3063	-2.2892	-0.1074	-0.0231
	57	95.4150	23.5980	8.8042	0.3731	95.4100	25.7664	10.9485	0.4249	0.7980
	58	95.6075	26.5518	1.9677	0.0741	95.5950	24.1232	-1.1369	-0.0471	0.0270
	59	95.8050	22.7847	8.3573	0.3668	95.8000	27.9730	12.2976	0.4396	0.8064
	60	95.9950	25.0963	1.8783	0.0749	95.9850	23.4190	-2.4016	-0.1026	-0.0277

CRIB #3										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	58.7350	42.6183	6.0280	0.1414	58.7325	24.6810	8.6944	0.3523	0.4937
	2	59.0325	36.0669	-1.5795	-0.0438	59.0325	30.6345	-0.4484	-0.0146	-0.0584
	3	59.8550	33.1551	5.9997	0.1810	59.8550	32.9174	9.1071	0.2767	0.4576
	4	60.1500	23.6920	-0.6745	-0.0285	60.1550	41.4223	-1.1151	-0.0269	-0.0554
LOCO 4901	5	60.6875	41.9359	5.0947	0.1215	60.6850	24.3677	7.8056	0.3203	0.4418
	6	60.9850	32.8367	-1.8057	-0.0550	60.9850	33.1412	0.7262	0.0219	-0.0331
	7	61.8075	31.7448	5.6321	0.1774	61.8075	36.1851	8.7262	0.2412	0.4186
	8	62.1050	25.1934	-0.6745	-0.0268	62.1075	41.0194	-1.3056	-0.0318	-0.0586
MC EMS-1	9	62.7350	35.4754	4.5574	0.1285	62.7300	16.1761	5.0754	0.3138	0.4422
	10	62.9275	34.3835	-3.1632	-0.0920	62.9225	18.1009	3.4881	0.1927	0.1007
	11	64.8425	19.2334	3.8787	0.2017	64.8450	28.6649	-1.6548	-0.0577	0.1439
	12	65.0375	13.5464	2.8606	0.2112	65.0400	39.0499	-3.4960	-0.0895	0.1216
FC EMS-1	13	65.5250	37.4773	5.3210	0.1420	65.5250	16.8476	5.0437	0.2994	0.4414
	14	65.7150	29.1970	-2.8238	-0.0967	65.7150	24.0096	2.4722	0.1030	0.0063
	15	66.6900	21.3262	6.4522	0.3026	66.6925	33.4098	9.4563	0.2830	0.5856
	16	66.8850	20.4163	0.8244	0.0404	66.8850	35.2003	-1.7183	-0.0488	-0.0084
T-5	17	67.3025	29.3790	3.9070	0.1330	67.2975	14.2961	4.1865	0.2928	0.4258
	18	67.5650	22.2361	-2.2016	-0.0990	67.5650	19.2648	1.4881	0.0772	-0.0218
	19	69.2650	19.8248	2.9737	0.1500	69.2625	22.4429	6.8849	0.3068	0.4568
	20	69.5275	17.0041	0.3719	0.0219	69.5275	24.9944	-1.3373	-0.0535	-0.0316
SC EMS-2	21	70.0300	33.2916	2.4647	0.0740	70.0250	20.7867	5.2659	0.2533	0.3274
	22	70.2175	32.1997	0.2022	0.0063	70.2175	20.2495	-0.5437	-0.0269	-0.0206
	23	70.4250	32.8822	1.7859	0.0543	70.4200	22.3534	6.6310	0.2966	0.3510
	24	70.6150	31.0623	-2.2016	-0.0709	70.6175	24.0991	0.9167	0.0380	-0.0328
	25	72.0750	23.6465	5.9714	0.2525	72.0700	28.5754	7.9008	0.2765	0.5290
	26	72.2650	21.0532	-1.4098	-0.0670	72.2675	30.9031	1.2341	0.0399	-0.0270
	27	72.4700	15.1843	6.3108	0.4156	72.4675	35.9165	7.8690	0.2191	0.6347
	28	72.6550	12.7730	1.3334	0.1044	72.6600	37.3489	-4.7341	-0.1268	-0.0224
TRIP-MLC	29	73.0800	46.4854	-3.9550	-0.0851	73.0750	24.1886	6.1548	0.2545	0.1694
	30	73.2775	45.8940	-1.0987	-0.0239	73.2750	23.1591	-1.6548	-0.0715	-0.0954
	31	73.4775	44.8931	3.5110	0.0782	73.4775	27.6354	6.8532	0.2480	0.3262
	32	73.6725	41.0259	-1.8906	-0.0461	73.6750	30.5002	-1.0198	-0.0334	-0.0795
	33	74.8875	29.1060	7.2441	0.2489	74.8800	39.9451	10.2500	0.2566	0.5055
	34	75.0825	26.8312	-1.2401	-0.0462	75.0850	43.4366	-1.7817	-0.0410	-0.0872
	35	75.2800	29.6065	9.2520	0.3125	75.2800	39.8556	9.9960	0.2508	0.5633
	36	75.4800	27.2862	0.6830	0.0250	75.4800	42.4518	-3.0198	-0.0711	-0.0461
LCC EMS-1	37	75.8950	32.6547	3.5676	0.1093	75.8975	17.8323	5.1071	0.2864	0.3957
	38	76.0850	27.0132	-1.5795	-0.0585	76.0850	22.3981	0.8849	0.0395	-0.0190
	39	76.2925	32.4727	2.4929	0.0768	76.2875	20.2943	6.0595	0.2986	0.3754
	40	76.4800	28.1506	-2.2299	-0.0792	76.4825	23.6515	1.6151	0.0683	-0.0109
	41	77.9375	22.3726	5.6886	0.2543	77.9325	28.1278	8.1230	0.2888	0.5431
	42	78.1225	21.1442	0.0042	0.0002	78.1275	30.7240	-0.9564	-0.0311	-0.0309
	43	78.3275	14.2743	6.4805	0.4540	78.3275	37.6175	7.5833	0.2016	0.6556
	44	78.5200	10.7712	1.3900	0.1291	78.5200	41.1537	-4.0040	-0.0973	0.0318
MLC EMS-	45	78.9150	45.0751	-3.3611	-0.0746	78.9125	26.9192	2.4722	0.0918	0.0173
	46	79.1125	44.3016	-0.9007	-0.0203	79.1100	27.6354	-0.7341	-0.0266	-0.0469
	47	79.3100	44.8021	-3.1632	-0.0706	79.3075	28.4859	4.5992	0.1615	0.0909
	48	79.5075	42.6183	-2.2299	-0.0523	79.5075	29.8287	1.1071	0.0371	-0.0152
	49	80.9550	26.6492	-1.8057	-0.0678	80.9525	39.8108	3.6786	0.0924	0.0246
	50	81.1525	25.3298	-1.0987	-0.0434	81.1525	41.1089	-0.4484	-0.0109	-0.0543
	51	81.3525	26.1033	1.2486	0.0478	81.3500	43.1680	2.1548	0.0499	0.0978
	52	81.5475	25.6938	0.7113	0.0277	81.5500	42.9890	-3.1151	-0.0725	-0.0448
SC EMS-1	53	81.9475	36.2489	5.9997	0.1655	81.9400	16.5790	3.9008	0.2353	0.4008
	54	82.1350	35.3389	1.1637	0.0329	82.1425	16.9819	-1.0516	-0.0619	-0.0290
	55	82.3425	33.2461	3.5110	0.1056	82.3375	21.6819	7.5198	0.3468	0.4524
	56	82.5300	29.8339	-2.6824	-0.0899	82.5350	25.0839	1.8056	0.0720	-0.0179
	57	84.0025	21.0987	7.1592	0.3393	83.9975	30.3211	11.0119	0.3632	0.7025
	58	84.1925	17.8230	-1.4946	-0.0839	84.1900	34.3050	3.0119	0.0878	0.0039
	59	84.3975	18.6874	6.6784	0.3574	84.3925	30.6345	4.2500	0.1387	0.4961
	60	84.5850	16.2307	2.1818	0.1344	84.5850	32.6040	-4.3532	-0.1335	0.0009

WR30_RN001		CRIB #1								
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	69.0400	33.7477	11.0017	0.3260	69.0400	32.9686	12.2384	0.3712	0.6972
	2	69.3125	32.8636	-1.0955	-0.0333	69.3225	32.9237	1.4868	0.0452	0.0118
	3	70.0775	37.5055	9.0777	0.2420	70.0875	27.0045	8.9764	0.3324	0.5744
	4	70.3525	31.6699	-1.6246	-0.0513	70.3625	33.2825	1.9305	0.0580	0.0067
LOCO 4901	5	70.8475	32.9520	9.7511	0.2959	70.8525	32.7444	12.2384	0.3738	0.6697
	6	71.1200	30.0342	-1.1676	-0.0389	71.1350	35.1659	1.8783	0.0534	0.0145
	7	71.8900	35.6929	10.8093	0.3028	71.9000	29.8296	10.5160	0.3525	0.6554
	8	72.1650	32.8636	-1.7929	-0.0546	72.1775	32.7444	1.8000	0.0550	0.0004
MC EMS-1	9	72.7475	24.2871	7.2018	0.2965	72.7550	30.0986	10.0202	0.3329	0.6294
	10	72.9275	24.3755	3.0652	0.1258	72.9350	26.1973	-1.6447	-0.0628	0.0630
	11	74.7075	25.7902	5.9752	0.2317	74.7125	26.9148	8.4545	0.3141	0.5458
	12	74.8850	29.3711	2.4158	0.0823	74.8950	22.8341	-1.0184	-0.0446	0.0377
FC EMS-1	13	75.3325	26.3649	8.5005	0.3224	75.3400	29.7847	9.3678	0.3145	0.6369
	14	75.5100	23.9334	3.8588	0.1612	75.5175	30.3228	1.6173	0.0533	0.2146
	15	76.4125	30.1668	4.6525	0.1542	76.4200	24.4933	8.5588	0.3494	0.5037
	16	76.5900	34.8972	5.0373	0.1444	76.5975	21.6681	2.1392	0.0987	0.2431
T-5	17	76.9750	24.0219	6.1436	0.2558	76.9825	21.5336	6.6016	0.3066	0.5623
	18	77.2150	20.0873	-0.0613	-0.0031	77.2275	20.6816	0.3647	0.0176	0.0146
	19	78.7850	22.7840	4.6284	0.2031	78.7925	20.0538	6.5755	0.3279	0.5310
	20	79.0275	20.4410	-1.0474	-0.0512	79.0375	22.3856	1.1476	0.0513	0.0000
SC EMS-2	21	79.4900	23.7124	6.0474	0.2550	79.4975	31.4888	10.6204	0.3373	0.5923
	22	79.6675	29.6806	2.7525	0.0927	79.6750	23.5515	-0.6792	-0.0288	0.0639
	23	79.8550	27.9122	9.7511	0.3494	79.8625	27.9013	9.2634	0.3320	0.6814
	24	80.0300	27.3817	3.5221	0.1286	80.0425	27.8116	-0.7313	-0.0263	0.1023
	25	81.3800	22.2977	5.7828	0.2594	81.3900	26.5560	9.0286	0.3400	0.5993
	26	81.5600	24.6408	1.9108	0.0776	81.5650	23.5067	-0.1311	-0.0056	0.0720
	27	81.7475	27.6027	7.9714	0.2888	81.7550	27.7219	9.4461	0.3407	0.6295
	28	81.9250	29.1501	4.1715	0.1431	81.9325	26.4663	-0.7052	-0.0267	0.1165
TRIP-MLC	29	82.3125	32.7752	6.5765	0.2007	82.3250	38.4394	10.6726	0.2777	0.4783
	30	82.5000	35.6045	0.8526	0.0240	82.5125	35.9731	2.2436	0.0624	0.0863
	31	82.6800	35.8255	8.5967	0.2400	82.6950	38.1255	10.1507	0.2662	0.5062
	32	82.8675	33.9246	1.1893	0.0351	82.8775	35.5246	-1.0184	-0.0287	0.0064
	33	83.9900	30.7858	5.9271	0.1925	83.9975	32.8789	9.0286	0.2746	0.4671
	34	84.1700	30.8742	1.0931	0.0354	84.1800	31.3094	0.4430	0.0142	0.0496
	35	84.3575	39.2296	9.0055	0.2296	84.3625	38.0358	10.6465	0.2799	0.5095
	36	84.5400	41.4843	2.5361	0.0611	84.5475	34.4484	-0.7313	-0.0212	0.0399
LCC EMS-1	37	84.9350	23.6240	6.1917	0.2621	84.9400	27.9910	7.4628	0.2666	0.5287
	38	85.1075	24.5966	2.0551	0.0836	85.1125	24.2690	-0.3660	-0.0151	0.0685
	39	85.2925	24.7734	7.4904	0.3024	85.3025	27.2287	6.6277	0.2434	0.5458
	40	85.4700	24.5524	3.0652	0.1248	85.4800	27.2735	-1.2533	-0.0460	0.0789
	41	86.8125	20.3083	4.0753	0.2007	86.8275	25.2107	6.2624	0.2484	0.4491
	42	86.9925	24.9502	2.5601	0.1026	86.9975	21.7578	0.4169	0.0192	0.1218
	43	87.1775	28.7080	7.2499	0.2525	87.1850	26.7354	5.7144	0.2137	0.4663
	44	87.3550	29.8574	4.0272	0.1349	87.3625	26.8699	-1.3316	-0.0496	0.0853
MLC EMS-	45	87.7200	33.2172	5.7107	0.1719	87.7300	41.1300	7.9325	0.1929	0.3648
	46	87.9000	32.9078	0.9488	0.0288	87.9100	39.6950	-0.7052	-0.0178	0.0111
	47	88.0825	33.3057	6.3841	0.1917	88.0925	40.2780	7.3584	0.1827	0.3744
	48	88.2650	33.9246	2.8487	0.0840	88.2750	36.1524	-1.6186	-0.0448	0.0392
	49	89.5925	29.1058	3.9791	0.1367	89.6000	33.0583	7.4628	0.2258	0.3625
	50	89.7775	29.5921	0.5159	0.0174	89.7850	30.9506	2.2958	0.0742	0.0916
	51	89.9550	39.9812	6.7929	0.1699	89.9625	35.5695	6.9148	0.1944	0.3643
	52	90.1400	44.4020	3.6664	0.0826	90.1475	31.7578	-1.4359	-0.0452	0.0374
SC EMS-1	53	90.4975	26.7186	6.1436	0.2299	90.5050	26.0628	7.0975	0.2723	0.5023
	54	90.6775	27.7354	1.0690	0.0385	90.6825	24.0897	0.7300	0.0303	0.0688
	55	90.8550	24.5524	6.0955	0.2483	90.8700	31.2645	8.6893	0.2779	0.5262
	56	91.0375	29.1058	4.4841	0.1541	91.0450	28.4394	-2.1666	-0.0762	0.0779
	57	92.3675	21.6788	4.5563	0.2102	92.3750	25.4350	7.3584	0.2893	0.4995
	58	92.5450	25.0829	1.9108	0.0762	92.5550	22.4305	0.9388	0.0419	0.1180
	59	92.7275	26.4091	5.6626	0.2144	92.7400	26.8251	7.1497	0.2665	0.4810
	60	92.9050	28.8406	3.2095	0.1113	92.9175	25.3901	-1.2533	-0.0494	0.0619

CRIB #2										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	66.7875	30.8958	9.8978	0.3204	66.7850	39.2324	17.0517	0.4346	0.7550
	2	67.0675	38.9009	2.5698	0.0661	67.0550	27.3075	-1.9477	-0.0713	-0.0053
	3	67.8325	30.6389	9.4956	0.3099	67.8275	36.7441	15.1967	0.4136	0.7235
	4	68.1100	31.4951	1.8326	0.0582	68.1025	33.5047	-2.5942	-0.0774	-0.0192
LOCO 4901	5	68.6025	31.8375	10.1435	0.3186	68.5975	36.6502	16.8268	0.4591	0.7777
	6	68.8825	38.9437	2.5028	0.0643	68.8725	26.0399	-2.2007	-0.0845	-0.0202
	7	69.6450	33.0790	10.4340	0.3154	69.6425	36.0399	16.5739	0.4599	0.7753
	8	69.9250	32.8649	1.9666	0.0598	69.9150	33.4108	-2.9033	-0.0869	-0.0271
MC EMS-1	9	70.5025	24.0464	7.3285	0.3048	70.5025	29.0915	11.9927	0.4122	0.7170
	10	70.6850	25.0310	1.2293	0.0491	70.6750	23.9742	-1.4418	-0.0601	-0.0110
	11	72.4625	25.8872	8.1328	0.3142	72.4625	23.7864	11.5430	0.4853	0.7994
	12	72.6450	25.5875	1.8996	0.0742	72.6425	25.3357	-2.3131	-0.0913	-0.0171
FC EMS-1	13	73.0925	29.9540	9.4733	0.3163	73.0925	27.1197	14.3535	0.5293	0.8455
	14	73.2725	32.7793	1.7432	0.0532	73.2725	20.9225	-1.3013	-0.0622	-0.0090
	15	74.1750	21.2211	7.0157	0.3306	74.1725	35.7112	9.8566	0.2760	0.6066
	16	74.3575	22.5482	1.4974	0.0664	74.3525	31.7206	-1.7229	-0.0543	0.0121
T-5	17	74.7400	17.4540	4.6476	0.2663	74.7375	28.0117	7.0742	0.2525	0.5188
	18	74.9850	20.4506	0.9166	0.0448	74.9800	21.2042	-2.5942	-0.1223	-0.0775
	19	76.5550	19.5516	4.9603	0.2537	76.5500	23.7394	6.7650	0.2850	0.5387
	20	76.8025	20.1937	0.8272	0.0410	76.7925	21.2042	-2.6223	-0.1237	-0.0827
SC EMS-2	21	77.2600	25.0310	6.9934	0.2794	77.2575	30.8286	7.7206	0.2504	0.5298
	22	77.4400	27.4283	1.8772	0.0684	77.4375	26.1807	-2.3693	-0.0905	-0.0221
	23	77.6250	25.2451	7.1498	0.2832	77.6200	27.8709	8.9573	0.3214	0.6046
	24	77.8050	26.5721	1.2517	0.0471	77.7950	23.6455	-1.5824	-0.0669	-0.0198
	25	79.1500	23.7896	6.7253	0.2827	79.1500	26.3685	8.6200	0.3269	0.6096
	26	79.3325	28.3273	2.3687	0.0836	79.3225	20.8286	-2.5379	-0.1219	-0.0382
	27	79.5150	25.9300	7.9764	0.3076	79.5150	27.2605	9.3507	0.3430	0.6506
	28	79.6950	26.5721	1.5198	0.0572	79.6850	23.5516	-2.5098	-0.1066	-0.0494
TRIP-MLC	29	80.0900	29.3975	8.7584	0.2979	80.0875	45.2417	10.9809	0.2427	0.5407
	30	80.2750	33.9779	3.1730	0.0934	80.2700	40.0774	-3.1563	-0.0788	0.0146
	31	80.4575	31.3666	9.8084	0.3127	80.4475	36.7441	12.2456	0.3333	0.6460
	32	80.6400	34.3632	1.7655	0.0514	80.6375	32.2840	-2.5660	-0.0795	-0.0281
	33	81.7600	27.3855	8.0434	0.2937	81.7550	36.5094	10.7560	0.2946	0.5883
	34	81.9450	33.2502	2.6145	0.0786	81.9400	32.6126	-2.2288	-0.0683	0.0103
	35	82.1275	33.7211	11.0818	0.3286	82.1250	40.4530	14.4941	0.3583	0.6869
	36	82.3100	36.5464	2.9720	0.0813	82.3075	37.7770	-2.8471	-0.0754	0.0059
LCC EMS-1	37	82.7075	21.6492	6.9934	0.3230	82.7050	31.9084	10.1096	0.3168	0.6399
	38	82.8875	25.5875	2.5028	0.0978	82.8750	26.0868	-2.0601	-0.0790	0.0188
	39	83.0725	23.0619	7.7307	0.3352	83.0625	25.8990	11.0652	0.4272	0.7625
	40	83.2500	25.6732	1.5198	0.0592	83.2425	19.4202	-1.7791	-0.0916	-0.0324
	41	84.5950	21.3495	7.2838	0.3412	84.5875	25.4765	9.5475	0.3748	0.7159
	42	84.7725	25.9728	2.2124	0.0852	84.7675	20.9695	-1.9477	-0.0929	-0.0077
	43	84.9550	24.7742	8.1775	0.3301	84.9550	27.5422	13.0045	0.4722	0.8022
	44	85.1375	27.2571	1.5645	0.0574	85.1250	23.0821	-2.3693	-0.1027	-0.0453
MLC EMS-	45	85.5000	36.7177	10.1435	0.2763	85.4975	42.3779	11.0090	0.2598	0.5360
	46	85.6825	39.5858	2.0783	0.0525	85.6775	38.1995	-2.3412	-0.0613	-0.0088
	47	85.8625	29.9112	8.7807	0.2936	85.8600	37.6831	10.5312	0.2795	0.5730
	48	86.0475	35.0481	1.2517	0.0357	86.0400	29.4202	-2.5942	-0.0882	-0.0525
	49	87.3800	28.7982	8.8030	0.3057	87.3750	34.9601	8.8167	0.2522	0.5579
	50	87.5625	32.9505	3.0390	0.0922	87.5575	31.5798	-1.4137	-0.0448	0.0475
	51	87.7450	31.9660	8.6913	0.2719	87.7400	39.2793	9.4913	0.2416	0.5135
	52	87.9275	35.4762	1.7879	0.0504	87.9200	34.5375	-3.4654	-0.1003	-0.0499
SC EMS-1	53	88.2900	22.2485	7.6189	0.3425	88.2850	31.0164	9.5194	0.3069	0.6494
	54	88.4700	24.6886	2.1006	0.0851	88.4575	27.7300	-3.0719	-0.1108	-0.0257
	55	88.6525	23.3615	8.0881	0.3462	88.6500	28.4812	9.1259	0.3204	0.6666
	56	88.8300	29.0122	2.2570	0.0778	88.8200	22.8943	-2.3974	-0.1047	-0.0269
	57	90.1650	22.5053	7.8200	0.3475	90.1625	25.9460	10.4469	0.4026	0.7501
	58	90.3425	26.2725	2.6592	0.1012	90.3350	23.0352	-0.9921	-0.0431	0.0582
	59	90.5250	23.0619	8.1551	0.3536	90.5225	27.2605	11.5711	0.4245	0.7781
	60	90.7025	24.9026	2.1453	0.0862	90.6925	23.3638	-2.7909	-0.1195	-0.0333



		CRIB #								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	56.0750	43.8865	7.3042	0.1664	56.0750	23.3661	8.2436	0.3528	0.5192
	2	56.3525	36.7436	-1.6608	-0.0452	56.3525	29.5434	0.8151	0.0276	-0.0176
	3	57.1200	34.2869	7.1345	0.2081	57.1200	32.1844	8.8468	0.2749	0.4830
	4	57.4000	24.9147	-0.4447	-0.0179	57.3975	40.6893	-1.1214	-0.0276	-0.0454
LOCO 4901	5	57.8950	41.9302	7.3324	0.1749	57.8950	24.0823	8.4976	0.3529	0.5277
	6	58.1725	33.9229	-1.6325	-0.0481	58.1725	32.0501	0.6564	0.0205	-0.0276
	7	58.9425	32.5580	7.9829	0.2452	58.9400	35.5416	-9.7357	0.2739	0.5191
	8	59.2200	25.8246	-0.7558	-0.0293	59.2200	41.0922	-0.7087	-0.0173	-0.0465
MC EMS-1	9	59.8050	35.9702	5.6639	0.1575	59.8025	15.1746	5.4500	0.3592	0.5166
	10	59.9850	33.1495	-2.8768	-0.0868	59.9850	17.9946	3.1960	0.1776	0.0908
	11	61.7750	19.9101	4.5892	0.2305	61.7775	30.1253	-2.0103	-0.0667	0.1638
	12	61.9525	14.8146	3.4863	0.2353	61.9550	34.7806	4.2437	0.1220	0.3573
FC EMS-1	13	62.4100	37.7445	7.7284	0.2048	62.4075	15.3088	5.5135	0.3602	0.5649
	14	62.5900	29.9192	-3.7818	-0.1264	62.5900	22.5604	2.6564	0.1177	-0.0087
	15	63.4975	22.9584	6.7385	0.2935	63.4975	31.4234	7.7992	0.2482	0.5417
	16	63.6775	19.7282	1.9874	0.1007	63.6775	36.4368	-2.0421	-0.0560	0.0447
T-5	17	64.0700	30.1467	4.9286	0.1635	64.0650	13.0707	4.4341	0.3392	0.5027
	18	64.3125	22.8219	-2.4244	-0.1062	64.3125	18.8451	1.7992	0.0955	-0.0108
	19	65.8975	19.1367	5.1266	0.2679	65.8950	22.2918	7.2913	0.3271	0.5950
	20	66.1400	18.7728	0.2057	0.0110	66.1400	23.2766	-0.8357	-0.0359	-0.0249
SC EMS-2	21	66.6100	35.0603	6.2578	0.1785	66.6050	19.5613	6.3389	0.3241	0.5025
	22	66.7850	34.0139	-0.8689	-0.0256	66.7850	19.3823	-0.1691	-0.0087	-0.0343
	23	66.9750	33.8319	5.0700	0.1499	66.9725	21.4861	7.4817	0.3482	0.4981
	24	67.1525	29.6008	-2.7354	-0.0924	67.1550	25.4700	1.7675	0.0694	-0.0230
	25	68.5100	23.0494	7.3607	0.3194	68.5125	29.6329	9.4817	0.3200	0.6393
	26	68.6900	19.0912	-1.0103	-0.0529	68.6900	31.8263	0.8151	0.0256	-0.0273
	27	68.8775	19.0912	7.8132	0.4093	68.8800	30.7967	8.2436	0.2677	0.6769
	28	69.0600	15.8610	1.1390	0.0718	69.0625	34.6911	-2.9944	-0.0863	-0.0145
TRIP-MLC	29	69.4600	46.9802	3.4297	0.0730	69.4575	22.8290	6.9421	0.3041	0.3771
	30	69.6450	46.2068	-1.2083	-0.0262	69.6450	22.1575	-1.4071	-0.0635	-0.0897
	31	69.8275	47.3897	5.8336	0.1231	69.8275	25.2462	7.3865	0.2926	0.4157
	32	70.0150	42.5216	-2.0850	-0.0490	70.0200	27.9319	0.8786	0.0315	-0.0176
	33	71.1400	31.0111	9.3403	0.3012	71.1375	38.9883	11.1960	0.2872	0.5884
	34	71.3225	26.1886	-1.4345	-0.0548	71.3275	42.8827	-0.9627	-0.0225	-0.0772
	35	71.5125	31.0566	11.4897	0.3700	71.5100	38.9436	10.8786	0.2793	0.6493
	36	71.6925	27.9629	1.1107	0.0397	71.6950	41.7636	-3.3754	-0.0808	-0.0411
LCC EMS-1	37	72.0950	33.6499	5.0983	0.1515	72.0900	17.6813	5.7040	0.3226	0.4741
	38	72.2675	27.8719	-1.2931	-0.0464	72.2700	22.0233	0.7198	0.0327	-0.0137
	39	72.4600	33.6499	5.2114	0.1549	72.4550	19.3823	6.6563	0.3434	0.4983
	40	72.6375	28.6454	-2.2264	-0.0777	72.6375	23.5004	1.8310	0.0779	0.0002
	41	73.9900	23.4133	7.3890	0.3156	73.9850	28.4691	8.9421	0.3141	0.6297
	42	74.1625	20.3651	-0.3882	-0.0191	74.1675	31.1548	-1.1214	-0.0360	-0.0551
	43	74.3525	17.5444	8.7465	0.4985	74.3500	32.9006	8.2436	0.2506	0.7491
	44	74.5275	13.0858	1.3652	0.1043	74.5300	37.9588	-3.7246	-0.0981	0.0062
MLC EMS-	45	74.8975	46.0248	3.7974	0.0825	74.8950	25.4700	5.0690	0.1990	0.2815
	46	75.0825	44.9329	-0.8972	-0.0200	75.0800	27.3053	-0.3278	-0.0120	-0.0320
	47	75.2650	46.3888	2.1571	0.0465	75.2625	27.2157	5.8627	0.2154	0.2619
	48	75.4475	42.8401	-1.9436	-0.0454	75.4475	29.1853	1.0056	0.0345	-0.0109
	49	76.7900	26.8255	5.3245	0.1985	76.7875	39.2121	7.4183	0.1892	0.3877
	50	76.9725	25.0967	-0.6427	-0.0256	76.9725	40.5550	-0.7405	-0.0183	-0.0439
	51	77.1550	26.0521	2.4965	0.0958	77.1550	42.1665	2.7198	0.0645	0.1603
	52	77.3375	25.3242	1.3087	0.0517	77.3375	42.5246	-3.6929	-0.0868	-0.0352
SC EMS-1	53	77.7075	35.1513	6.8517	0.1949	77.7025	16.9203	4.7198	0.2790	0.4739
	54	77.8850	35.0603	1.3087	0.0373	77.8850	16.0698	-0.9627	-0.0599	-0.0226
	55	78.0725	33.2404	4.5609	0.1372	78.0675	21.0385	8.0214	0.3813	0.5185
	56	78.2475	29.3278	-3.4990	-0.1193	78.2475	26.0519	2.9738	0.1142	-0.0052
	57	79.5975	21.6390	8.0112	0.3702	79.5975	30.6177	11.0055	0.3595	0.7297
	58	79.7750	18.2723	-1.4345	-0.0785	79.7775	33.8406	-2.7833	-0.0823	-0.0037
	59	79.9650	22.0485	9.0858	0.4121	79.9625	27.3948	6.3706	0.2326	0.6446
	60	80.1375	18.6363	2.9772	0.1598	80.1400	29.8567	-3.6929	-0.1237	0.0361

WR31_RN001		CRIB #1							
	TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1				63.7444	33.0134	10.6721	0.3233	0.3233
	2				64.0022	31.7130	1.1732	0.0370	0.0370
	3				64.7022	24.9417	7.6711	0.3076	0.3076
	4				64.9600	32.4753	1.3819	0.0426	0.0426
LOCO 4901	5				65.4089	32.0269	10.8548	0.3389	0.3389
	6				65.6644	32.9237	1.0688	0.0325	0.0325
	7				66.3644	28.5740	9.8109	0.3434	0.3434
	8				66.6244	31.7130	1.3036	0.0411	0.0411
MC EMS-1	9				67.1533	29.7399	9.5239	0.3202	0.3202
	10				67.3222	24.9417	-2.1410	-0.0858	-0.0858
	11				68.9533	26.2421	8.9498	0.3411	0.3411
	12				69.1178	21.8027	-1.6452	-0.0755	-0.0755
FC EMS-1	13				69.5267	27.0941	9.1324	0.3371	0.3371
	14				69.6956	28.6637	0.5991	0.0209	0.0209
	15				70.5200	24.6278	8.7149	0.3539	0.3539
	16				70.6844	22.5202	1.0166	0.0451	0.0451
T-5	17				71.0333	19.2915	5.6095	0.2908	0.2908
	18				71.2644	21.9820	0.2337	0.0106	0.0106
	19				72.7000	18.9327	5.7922	0.3059	0.3059
	20				72.9267	23.1928	0.9644	0.0416	0.0416
SC EMS-2	21				73.3467	29.6950	9.9414	0.3348	0.3348
	22				73.5089	23.1480	-1.4364	-0.0621	-0.0621
	23				73.6800	27.5426	9.4717	0.3439	0.3439
	24				73.8467	26.6009	-1.4886	-0.0560	-0.0560
	25				75.0800	26.6906	8.8193	0.3304	0.3304
	26				75.2467	22.6098	-0.6536	-0.0289	-0.0289
	27				75.4156	28.9776	9.9153	0.3422	0.3422
	28				75.5800	26.0179	-1.5930	-0.0612	-0.0612
TRIP-MLC	29				75.9400	36.6905	12.3162	0.3357	0.3357
	30				76.1133	33.6412	2.0082	0.0597	0.0597
	31				76.2756	38.7085	13.0207	0.3364	0.3364
	32				76.4467	32.8340	-1.5408	-0.0469	-0.0469
	33				77.4711	30.9058	9.9414	0.3217	0.3217
	34				77.6378	32.6995	-0.4970	-0.0152	-0.0152
	35				77.8067	37.2287	13.9080	0.3736	0.3736
	36				77.9756	32.9237	-1.3321	-0.0405	-0.0405
LCC EMS-1	37				78.3356	26.5560	9.6544	0.3636	0.3636
	38				78.5022	24.1794	-0.8101	-0.0335	-0.0335
	39				78.6689	28.1255	10.4633	0.3720	0.3720
	40				78.8356	24.6278	-2.4020	-0.0975	-0.0975
	41				80.0578	25.2107	9.8892	0.3923	0.3923
	42				80.2222	21.3094	-0.6014	-0.0282	-0.0282
	43				80.3867	27.5426	9.9675	0.3619	0.3619
	44				80.5489	25.5695	-1.9323	-0.0756	-0.0756
MLC EMS-	45				80.8822	39.2466	9.7848	0.2493	0.2493
	46				81.0511	37.7668	-1.1233	-0.0297	-0.0297
	47				81.2133	38.7533	10.1502	0.2619	0.2619
	48				81.3822	36.1524	-2.2976	-0.0636	-0.0636
	49				82.5889	32.8789	10.5155	0.3198	0.3198
	50				82.7600	30.5022	0.8861	0.0291	0.0291
	51				82.9222	33.8206	8.6888	0.2569	0.2569
	52				83.0889	30.1435	-2.0627	-0.0684	-0.0684
SC EMS-1	53				83.4178	26.1973	10.1502	0.3875	0.3875
	54				83.5822	24.0448	-0.2882	-0.0120	-0.0120
	55				83.7467	29.0672	11.0114	0.3788	0.3788
	56				83.9111	27.1390	-2.3498	-0.0866	-0.0866
	57				85.1244	24.2242	9.3151	0.3845	0.3845
	58				85.2889	22.9237	0.3120	0.0136	0.0136
	59				85.4533	26.2870	10.0719	0.3832	0.3832
	60				85.6178	24.3139	-2.0627	-0.0848	-0.0848

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	61.6711	28.2934	9.5035	0.3359	61.6689	40.1429	17.7453	0.4421	0.7779
	2	61.9311	38.9526	2.1756	0.0559	61.9200	28.9692	-2.7718	-0.0957	-0.0398
	3	62.6311	28.0365	8.4535	0.3015	62.6311	39.9081	13.0797	0.3278	0.6293
	4	62.8889	32.2317	0.8351	0.0259	62.8844	35.5889	-3.8399	-0.1079	-0.0820
LOCO 4901	5	63.3467	28.2078	8.0290	0.2846	63.3378	41.9269	15.6654	0.3736	0.6583
	6	63.5978	38.3105	2.0862	0.0545	63.5911	26.5279	-2.8281	-0.1066	-0.0522
	7	64.2978	29.4920	7.7162	0.2616	64.2956	36.9974	14.2602	0.3854	0.6471
	8	64.5556	32.5314	1.0361	0.0319	64.5511	34.6030	-3.7274	-0.1077	-0.0759
MC EMS-1	9	65.0911	22.7283	6.0183	0.2648	65.0867	30.6593	10.3816	0.3386	0.6034
	10	65.2556	23.5845	0.9244	0.0392	65.2467	25.3072	-1.9287	-0.0762	-0.0370
	11	66.8889	24.9543	5.6831	0.2277	66.8867	25.9645	9.8476	0.3793	0.6070
	12	67.0556	26.8379	1.7511	0.0653	67.0444	25.4481	-2.5751	-0.1012	-0.0359
FC EMS-1	13	67.4667	28.8071	6.6885	0.2322	67.4667	31.0349	14.1477	0.4559	0.6881
	14	67.6333	31.8893	1.5053	0.0472	67.6244	22.9129	-1.8163	-0.0793	-0.0321
	15	68.4600	21.8721	5.2587	0.2404	68.4578	38.1711	9.5384	0.2499	0.4903
	16	68.6267	21.7009	0.9244	0.0426	68.6178	34.4152	-2.1816	-0.0634	-0.0208
T-5	17	68.9800	16.1358	4.3650	0.2705	68.9756	29.8612	7.5148	0.2517	0.5222
	18	69.2044	19.6889	0.5223	0.0265	69.1956	21.4105	-2.4908	-0.1163	-0.0898
	19	70.6444	18.4903	4.6554	0.2518	70.6444	26.2931	8.2456	0.3136	0.5654
	20	70.8711	18.7471	0.6117	0.0326	70.8644	23.5232	-2.4065	-0.1023	-0.0697
SC EMS-2	21	71.2911	22.3858	5.8842	0.2629	71.2911	34.6030	8.5547	0.2472	0.5101
	22	71.4578	25.6393	1.9075	0.0744	71.4511	28.4058	-1.8163	-0.0639	0.0105
	23	71.6289	24.0126	6.5991	0.2748	71.6267	30.2368	10.7189	0.3545	0.6293
	24	71.7933	27.0519	1.0138	0.0375	71.7844	24.0396	-1.3385	-0.0557	-0.0182
	25	73.0289	21.6581	6.1523	0.2841	73.0289	29.0161	9.7633	0.3365	0.6205
	26	73.1911	26.3242	1.8851	0.0716	73.1889	22.5373	-2.0411	-0.0906	-0.0190
	27	73.3644	25.3824	7.3811	0.2908	73.3622	28.9222	12.3490	0.4270	0.7178
	28	73.5289	25.6821	1.3489	0.0525	73.5267	24.5091	-1.7600	-0.0718	-0.0193
TRIP-MLC	29	73.8911	29.4064	7.5821	0.2578	73.8889	47.5138	11.7307	0.2469	0.5047
	30	74.0578	31.1615	1.7064	0.0548	74.0533	42.4903	-2.9967	-0.0705	-0.0158
	31	74.2267	32.0605	8.4758	0.2644	74.2244	40.5185	12.1241	0.2992	0.5636
	32	74.3978	32.8738	1.4606	0.0444	74.3889	33.6640	-2.4065	-0.0715	-0.0271
	33	75.4222	27.0947	7.7162	0.2848	75.4200	38.4058	10.9718	0.2857	0.5705
	34	75.5933	31.5040	1.3713	0.0435	75.5844	35.4011	-2.2940	-0.0648	-0.0213
	35	75.7600	33.4732	9.2801	0.2772	75.7578	44.5091	14.0353	0.3153	0.5926
	36	75.9289	34.9286	2.0862	0.0597	75.9244	36.4340	-2.8843	-0.0792	-0.0194
LCC EMS-1	37	76.2911	22.6427	6.7108	0.2964	76.2889	32.3964	12.0679	0.3725	0.6689
	38	76.4556	25.9389	1.7734	0.0684	76.4467	26.6687	-1.6195	-0.0607	0.0076
	39	76.6244	22.1290	6.5321	0.2952	76.6200	28.4528	11.1685	0.3925	0.6877
	40	76.7889	24.0126	1.1479	0.0478	76.7800	21.5044	-1.5071	-0.0701	-0.0223
	41	78.0200	20.6307	6.3757	0.3090	78.0200	27.5138	10.3254	0.3753	0.6843
	42	78.1844	24.8687	2.1756	0.0875	78.1778	22.4434	-1.1979	-0.0534	0.0341
	43	78.3556	24.2694	7.0013	0.2885	78.3533	29.0161	13.0797	0.4508	0.7393
	44	78.5178	26.8379	1.3266	0.0494	78.5111	23.6640	-1.7319	-0.0732	-0.0238
MLC EMS-	45	78.8511	33.6872	8.6322	0.2563	78.8489	44.7908	11.3934	0.2544	0.5106
	46	79.0178	37.5399	1.2596	0.0336	79.0133	38.8283	-1.9287	-0.0497	-0.0161
	47	79.1844	29.1067	7.5375	0.2590	79.1844	39.0631	9.9881	0.2557	0.5147
	48	79.3533	31.3328	-0.5501	-0.0176	79.3444	32.9598	-1.1417	-0.0346	-0.0522
	49	80.5667	26.4954	7.3141	0.2761	80.5622	37.4668	9.8195	0.2621	0.5381
	50	80.7333	30.1341	2.1085	0.0700	80.7311	33.3823	-1.4228	-0.0426	0.0274
	51	80.8978	29.2352	7.4481	0.2548	80.8956	43.0067	8.9201	0.2074	0.4622
	52	81.0667	32.9167	0.7680	0.0233	81.0600	36.9035	-2.0411	-0.0553	-0.0320
SC EMS-1	53	81.3956	21.9578	7.0460	0.3209	81.3933	33.4762	11.0842	0.3311	0.6520
	54	81.5578	24.1838	1.7957	0.0743	81.5489	28.4058	-2.5189	-0.0887	-0.0144
	55	81.7267	22.0006	7.3587	0.3345	81.7244	31.9739	10.5221	0.3291	0.6636
	56	81.8911	26.6667	1.7511	0.0657	81.8844	24.3213	-1.9006	-0.0781	-0.0125
	57	83.1067	22.0434	7.3141	0.3318	83.1067	28.2650	10.6626	0.3772	0.7090
	58	83.2689	25.5108	2.2649	0.0888	83.2644	24.1805	-0.9169	-0.0379	-0.0509
	59	83.4356	22.1290	7.5598	0.3416	83.4333	28.4528	12.6019	0.4429	0.7845
	60	83.6000	24.6547	1.5500	0.0629	83.5889	24.5091	-2.2659	-0.0925	-0.0296

CRIB #3										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	51.7622	43.0866	7.1807	0.1667	51.7578	23.5740	8.1707	0.3466	0.5133
	2	52.0178	36.9447	-1.5297	-0.0414	52.0178	29.5722	-0.4325	-0.0146	-0.0560
	3	52.7333	33.4415	6.2192	0.1860	52.7289	31.4075	8.2660	0.2632	0.4492
	4	52.9867	25.2523	0.1389	0.0055	52.9889	39.5991	-1.3531	-0.0342	-0.0287
LOCO 4901	5	53.4511	42.3587	6.8414	0.1615	53.4467	23.3950	7.9802	0.3411	0.5026
	6	53.7067	34.5334	-1.4731	-0.0427	53.7067	32.0789	-0.4959	-0.0155	-0.0581
	7	54.4200	31.8947	6.1626	0.1932	54.4178	35.7942	8.3612	0.2336	0.4268
	8	54.6778	26.2077	-0.5116	-0.0195	54.6778	40.2705	-1.1944	-0.0297	-0.0492
MC EMS-1	9	55.2222	36.5352	4.1830	0.1145	55.2200	14.7558	4.1390	0.2805	0.3950
	10	55.3867	36.0803	-3.1699	-0.0879	55.3844	17.2625	2.4564	0.1423	0.0544
	11	57.0422	20.2022	4.6355	0.2295	57.0444	29.8408	-2.4007	-0.0805	0.1490
	12	57.2089	15.0612	2.3165	0.1538	57.2111	34.7199	4.3295	0.1247	0.2785
FC EMS-1	13	57.6333	38.9920	6.3323	0.1624	57.6333	14.3529	4.1390	0.2884	0.4508
	14	57.7978	30.5298	-3.2831	-0.1075	57.8000	22.3654	2.2977	0.1027	-0.0048
	15	58.6422	20.6117	4.2961	0.2084	58.6378	32.6609	7.4406	0.2278	0.4362
	16	58.8044	19.9747	2.7973	0.1400	58.8044	36.1524	-2.6864	-0.0743	0.0657
T-5	17	59.1689	30.8937	4.0699	0.1317	59.1622	12.9653	3.9485	0.3045	0.4363
	18	59.3956	22.9775	-2.4912	-0.1084	59.3933	18.9635	1.7580	0.0927	-0.0157
	19	60.8556	19.5198	3.4477	0.1766	60.8511	21.9178	6.7421	0.3076	0.4842
	20	61.0800	18.6099	0.4500	0.0242	61.0800	23.4845	-1.2896	-0.0549	-0.0307
SC EMS-2	21	61.5133	33.8055	4.5224	0.1338	61.5067	19.8140	6.0437	0.3050	0.4388
	22	61.6733	34.1694	-0.5116	-0.0150	61.6733	19.0530	-0.3690	-0.0194	-0.0343
	23	61.8511	33.5325	3.1649	0.0944	61.8489	21.9178	7.0279	0.3207	0.4150
	24	62.0133	30.5298	-2.3498	-0.0770	62.0111	24.7379	1.0914	0.0441	-0.0329
	25	63.2578	23.7964	5.7102	0.2400	63.2578	30.1541	9.2818	0.3078	0.5478
	26	63.4244	19.9747	-0.6813	-0.0341	63.4244	30.4227	-0.3055	-0.0100	-0.0442
	27	63.5956	19.6108	4.6921	0.2393	63.5978	29.9751	5.6628	0.1889	0.4282
	28	63.7622	18.9738	2.7973	0.1474	63.7622	31.5866	-3.3848	-0.1072	0.0403
TRIP-MLC	29	64.1356	48.9101	-3.5659	-0.0729	64.1356	23.7083	6.1072	0.2576	0.1847
	30	64.3022	47.8182	0.7045	0.0147	64.3022	22.9921	-1.6388	-0.0713	-0.0565
	31	64.4711	47.0903	4.0133	0.0852	64.4711	27.2446	6.8374	0.2510	0.3362
	32	64.6422	44.3605	-1.4448	-0.0326	64.6422	27.2893	-1.0674	-0.0391	-0.0717
	33	65.6800	28.8919	7.8312	0.2711	65.6756	39.4648	10.4882	0.2658	0.5368
	34	65.8422	26.9811	-0.5398	-0.0200	65.8467	43.0906	-1.7975	-0.0417	-0.0617
	35	66.0178	29.4379	10.1502	0.3448	66.0156	40.0019	9.7898	0.2447	0.5895
	36	66.1844	27.6180	1.7792	0.0644	66.1867	40.9420	-4.3372	-0.1059	-0.0415
LCC EMS-1	37	66.5511	33.3050	4.2396	0.1273	66.5489	17.6654	5.1548	0.2918	0.4191
	38	66.7133	27.8910	-0.9075	-0.0325	66.7156	21.2911	-0.1150	-0.0054	-0.0379
	39	66.8867	33.4415	4.9749	0.1488	66.8844	20.3959	6.2342	0.3057	0.4544
	40	67.0533	28.7099	-1.4165	-0.0493	67.0489	23.6188	1.8533	0.0785	0.0291
	41	68.2911	23.8874	6.6434	0.2781	68.2889	28.0503	8.2025	0.2924	0.5705
	42	68.4489	19.6108	1.2984	0.0662	68.4533	30.7361	-1.5118	-0.0492	0.0170
	43	68.6244	19.3378	7.2090	0.3728	68.6267	30.5123	7.6310	0.2501	0.6229
	44	68.7911	16.3351	1.4115	0.0864	68.7911	32.8399	-3.4166	-0.1040	-0.0176
MLC EMS-	45	69.1267	45.8164	2.6559	0.0580	69.1244	25.3198	3.8850	0.1534	0.2114
	46	69.2933	44.3605	-0.8509	-0.0192	69.2956	27.0208	-0.6864	-0.0254	-0.0446
	47	69.4644	45.9984	-2.5478	-0.0554	69.4600	27.4684	4.7104	0.1715	0.1161
	48	69.6311	43.0866	-2.0104	-0.0467	69.6311	28.9456	1.0279	0.0355	-0.0112
	49	70.8622	28.5735	3.5608	0.1246	70.8600	38.4800	4.7422	0.1232	0.2479
	50	71.0311	25.7982	-0.4550	-0.0176	71.0311	40.1362	-0.8134	-0.0203	-0.0379
	51	71.2000	24.9793	1.3550	0.0542	71.1978	41.9267	2.4564	0.0586	0.1128
	52	71.3667	26.5261	1.1570	0.0436	71.3667	42.9115	-3.9880	-0.0929	-0.0493
SC EMS-1	53	71.7044	36.7172	6.3323	0.1725	71.7000	15.2034	4.0120	0.2639	0.4364
	54	71.8644	35.6253	1.6943	0.0476	71.8667	16.7253	-1.1309	-0.0676	-0.0201
	55	72.0378	33.6235	3.7022	0.1101	72.0356	21.6492	7.8850	0.3642	0.4743
	56	72.2022	28.8919	-2.7740	-0.0960	72.2000	26.4836	2.5517	0.0964	0.0003
	57	73.4378	20.7937	6.1061	0.2937	73.4400	30.9599	10.6787	0.3449	0.6386
	58	73.6044	17.5179	-1.0206	-0.0583	73.6022	32.1237	2.4882	0.0775	0.0192
	59	73.7778	22.4315	7.6898	0.3428	73.7733	26.3941	4.9009	0.1857	0.5285
	60	73.9378	21.2486	3.8719	0.1822	73.9378	27.9160	-4.0832	-0.1463	0.0359

WR31_RN002		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	63.7340	35.0574	12.7138	0.3627	63.7400	32.0538	12.5751	0.3923	0.7550
	2	63.9820	34.2175	-0.7783	-0.0227	63.9940	31.3363	1.3539	0.0432	0.0205
	3	64.6820	38.6825	11.2708	0.2914	64.6900	24.6547	9.2870	0.3767	0.6681
	4	64.9380	33.3333	-1.1390	-0.0342	64.9480	31.7847	1.5365	0.0483	0.0142
LOCO 4901	5	65.3900	34.2617	12.2568	0.3577	65.3980	31.5605	12.5751	0.3985	0.7562
	6	65.6420	31.6092	-0.1530	-0.0048	65.6540	32.5919	1.1451	0.0351	0.0303
	7	66.3440	37.1352	12.9302	0.3482	66.3540	28.2421	10.9050	0.3861	0.7343
	8	66.6000	34.6595	-1.2593	-0.0363	66.6100	31.6950	1.7714	0.0559	0.0196
MC EMS-1	9	67.1320	23.8284	9.1303	0.3832	67.1400	30.1255	11.7401	0.3897	0.7729
	10	67.2940	26.0389	2.7090	0.1040	67.3060	25.1928	-2.0908	-0.0830	0.0211
	11	68.9240	24.6242	8.3607	0.3395	68.9340	27.2556	10.3831	0.3810	0.7205
	12	69.0920	29.2219	2.4685	0.0845	69.0980	22.3229	-1.5167	-0.0679	0.0165
FC EMS-1	13	69.5000	28.1609	11.1505	0.3960	69.5060	27.2107	10.0177	0.3682	0.7641
	14	69.6620	25.1989	2.8773	0.1142	69.6720	29.4977	0.5971	0.0202	0.1344
	15	70.4880	30.7250	6.7253	0.2189	70.4960	24.6098	9.4958	0.3859	0.6047
	16	70.6540	32.8470	2.7571	0.0839	70.6600	23.2646	1.1451	0.0492	0.1332
T-5	17	71.0020	24.7126	7.1342	0.2887	71.0100	19.0045	6.6774	0.3514	0.6401
	18	71.2260	20.4244	-0.0087	-0.0004	71.2380	21.9193	0.3361	0.0153	0.0149
	19	72.6680	21.7506	6.3405	0.2915	72.6740	19.3184	6.8601	0.3551	0.6466
	20	72.8880	20.1149	-0.7783	-0.0387	72.9020	22.7713	1.0929	0.0480	0.0093
SC EMS-2	21	73.3100	26.2599	8.4810	0.3230	73.3180	28.6906	10.9050	0.3801	0.7031
	22	73.4760	30.4597	2.6609	0.0874	73.4820	23.3094	-1.1253	-0.0483	0.0391
	23	73.6460	28.7798	12.9062	0.4485	73.6560	27.9282	10.4875	0.3755	0.8240
	24	73.8100	27.5420	3.2621	0.1184	73.8200	27.9282	-0.7338	-0.0263	0.0922
	25	75.0420	22.7232	8.7696	0.3859	75.0560	25.9551	9.8612	0.3799	0.7659
	26	75.2100	25.2431	2.2039	0.0873	75.2140	22.6816	-0.2641	-0.0116	0.0757
	27	75.3820	28.7798	11.1024	0.3858	75.3840	28.0179	10.5918	0.3780	0.7638
	28	75.5380	30.1945	4.4406	0.1471	75.5500	26.1793	-1.5689	-0.0599	0.0871
TRIP-MLC	29	75.9060	35.1458	10.9581	0.3118	75.9100	36.0448	12.8883	0.3576	0.6694
	30	76.0720	36.8258	1.2179	0.0331	76.0820	34.6098	1.1712	0.0338	0.0669
	31	76.2400	36.2068	11.9682	0.3306	76.2460	37.9282	13.7234	0.3618	0.6924
	32	76.4080	35.1901	1.6508	0.0469	76.4160	33.7578	-1.4123	-0.0418	0.0051
	33	77.4300	31.3439	7.9759	0.2545	77.4380	30.8430	10.5136	0.3409	0.5953
	34	77.5980	30.9902	0.4483	0.0145	77.6080	32.5471	-0.2641	-0.0081	0.0064
	35	77.7660	38.9036	12.7859	0.3287	77.7740	37.0314	14.2975	0.3861	0.7148
	36	77.9340	42.1308	2.8292	0.0672	77.9440	32.5471	-1.2036	-0.0370	0.0302
LCC EMS-1	37	78.2940	23.9611	9.5151	0.3971	78.3020	26.6726	9.6524	0.3619	0.7590
	38	78.4580	26.3041	2.0596	0.0783	78.4660	24.8789	-0.7338	-0.0295	0.0488
	39	78.6280	26.9230	10.9581	0.4070	78.6340	28.0628	10.2265	0.3644	0.7714
	40	78.7920	26.7020	3.7431	0.1402	78.8000	25.5515	-2.4823	-0.0972	0.0430
	41	80.0120	21.6622	8.0481	0.3715	80.0200	25.6412	9.9394	0.3876	0.7592
	42	80.1780	24.3589	2.0356	0.0836	80.1820	22.1435	-0.6816	-0.0308	0.0528
	43	80.3420	28.1609	10.4531	0.3712	80.3500	27.4350	9.9916	0.3642	0.7354
	44	80.5060	30.4155	4.3444	0.1428	80.5120	25.4619	-1.9864	-0.0780	0.0648
MLC EMS-	45	80.8360	35.4995	8.2164	0.2315	80.8440	39.3183	10.0960	0.2568	0.4882
	46	81.0000	34.4385	0.9533	0.0277	81.0120	38.2421	-0.9426	-0.0247	0.0030
	47	81.1640	35.2343	10.5733	0.3001	81.1700	38.8251	10.0699	0.2594	0.5595
	48	81.3340	33.0680	2.2039	0.0667	81.3400	36.3139	-2.1430	-0.0590	0.0076
	49	82.5360	30.7692	6.8696	0.2233	82.5440	32.4125	10.4875	0.3236	0.5468
	50	82.7000	30.9902	0.1837	0.0059	82.7100	30.4843	1.0668	0.0350	0.0409
	51	82.8660	40.9814	9.2987	0.2269	82.8720	34.2511	8.7129	0.2544	0.4813
	52	83.0320	43.0150	2.9254	0.0680	83.0380	30.3049	-1.8560	-0.0612	0.0068
SC EMS-1	53	83.3560	28.3377	9.1784	0.3239	83.3640	26.6726	10.3309	0.3873	0.7112
	54	83.5140	28.6030	0.5445	0.0190	83.5220	24.1166	0.3622	0.0150	0.0341
	55	83.6820	27.5862	10.4050	0.3772	83.6900	30.0358	11.3225	0.3770	0.7542
	56	83.8440	30.5481	4.3925	0.1438	83.8520	26.7175	-2.5084	-0.0939	0.0499
	57	85.0500	23.9169	8.6493	0.3616	85.0560	24.6098	9.5480	0.3880	0.7496
	58	85.2040	25.9505	1.4824	0.0571	85.2160	23.2197	0.6493	0.0280	0.0851
	59	85.3740	28.7356	10.0923	0.3512	85.3780	25.9103	9.9916	0.3856	0.7368
	60	85.5320	29.8850	3.5507	0.1188	85.5400	24.0269	-2.0125	-0.0838	0.0351

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	61.6740	29.6216	9.9942	0.3374	61.6700	40.2244	18.8690	0.4691	0.8065
	2	61.9280	37.4555	2.2194	0.0593	61.9180	28.8159	-1.5919	-0.0552	0.0040
	3	62.6300	28.9366	9.6144	0.3323	62.6280	37.7361	16.5643	0.4390	0.7712
	4	62.8840	30.6490	1.8843	0.0615	62.8740	35.0601	-2.3789	-0.0679	-0.0064
LOCO 4901	5	63.3360	30.3493	10.5080	0.3462	63.3280	38.0178	18.6722	0.4911	0.8374
	6	63.5900	38.9109	2.2641	0.0582	63.5800	27.4075	-1.8449	-0.0673	-0.0091
	7	64.2920	31.8904	10.7314	0.3365	64.2860	36.1868	19.1781	0.5300	0.8665
	8	64.5460	32.9606	2.1077	0.0640	64.5360	33.8863	-2.3508	-0.0694	-0.0054
MC EMS-1	9	65.0780	23.8425	7.4919	0.3142	65.0760	28.4873	12.6295	0.4433	0.7576
	10	65.2420	23.7997	1.1917	0.0501	65.2340	25.2948	-1.6762	-0.0663	-0.0162
	11	66.8740	25.7260	7.6036	0.2956	66.8740	24.7314	11.3648	0.4595	0.7551
	12	67.0400	26.5822	1.7055	0.0642	67.0300	25.6234	-1.9573	-0.0764	-0.0122
FC EMS-1	13	67.4500	28.5942	8.9218	0.3120	67.4480	27.7361	15.0185	0.5415	0.8535
	14	67.6160	31.5479	1.4821	0.0470	67.6100	23.0413	-1.0579	-0.0459	0.0011
	15	68.4420	20.4606	6.5983	0.3225	68.4400	36.7502	11.1399	0.3031	0.6256
	16	68.6060	21.4024	0.7449	0.0348	68.6000	34.8723	-1.8730	-0.0537	-0.0189
T-5	17	68.9540	15.4521	5.3472	0.3461	68.9540	30.7408	10.0157	0.3258	0.6719
	18	69.1840	18.9195	0.7449	0.0394	69.1740	21.9615	-1.9573	-0.0891	-0.0498
	19	70.6200	17.3356	5.7046	0.3291	70.6180	27.1258	10.1000	0.3723	0.7014
	20	70.8460	18.5771	0.9013	0.0485	70.8400	23.4169	-2.2383	-0.0956	-0.0471
SC EMS-2	21	71.2680	22.3442	7.4473	0.3333	71.2660	32.6187	8.5261	0.2614	0.5947
	22	71.4320	25.8116	1.7726	0.0687	71.4260	29.5671	-1.3671	-0.0462	0.0224
	23	71.6040	23.5000	7.9388	0.3378	71.5960	30.2244	11.6458	0.3853	0.7231
	24	71.7680	26.2397	0.6778	0.0258	71.7580	24.6845	-0.8331	-0.0338	-0.0079
	25	73.0020	20.9743	7.0898	0.3380	73.0000	27.4075	10.3811	0.3788	0.7168
	26	73.1680	26.4110	1.7726	0.0671	73.1560	21.9615	-1.7324	-0.0789	-0.0118
	27	73.3380	23.8425	8.1175	0.3405	73.3360	28.0648	12.2361	0.4360	0.7765
	28	73.5040	25.9401	1.1693	0.0451	73.4940	25.1070	-1.3952	-0.0556	-0.0105
TRIP-MLC	29	73.8620	28.1233	8.8771	0.3157	73.8600	45.5295	12.2642	0.2694	0.5850
	30	74.0320	30.9486	2.1077	0.0681	74.0260	43.1821	-3.0253	-0.0701	-0.0020
	31	74.1980	30.3493	9.8601	0.3249	74.1960	39.5671	13.6413	0.3448	0.6697
	32	74.3680	32.6609	1.1693	0.0358	74.3620	33.7455	-2.0416	-0.0605	-0.0247
	33	75.3940	26.3253	8.2515	0.3134	75.3920	38.3934	11.4491	0.2982	0.6116
	34	75.5640	32.0188	1.5938	0.0498	75.5540	35.6704	-2.4913	-0.0698	-0.0201
	35	75.7300	32.4041	10.6197	0.3277	75.7280	42.4309	14.6812	0.3460	0.6737
	36	75.9000	33.6455	1.7726	0.0527	75.8900	36.7032	-2.5194	-0.0686	-0.0160
LCC EMS-1	37	76.2600	22.5154	7.7153	0.3427	76.2580	31.7267	12.8263	0.4043	0.7469
	38	76.4220	25.4264	1.6385	0.0644	76.4160	26.8911	-1.3671	-0.0508	0.0136
	39	76.5940	21.2312	7.4473	0.3508	76.5860	28.2526	11.8426	0.4192	0.7699
	40	76.7600	24.2277	1.1023	0.0455	76.7500	21.3042	-1.3109	-0.0615	-0.0160
	41	77.9880	19.9469	7.0898	0.3554	77.9840	26.4216	9.9314	0.3759	0.7313
	42	78.1520	24.1421	1.9066	0.0790	78.1420	22.1962	-1.1703	-0.0527	0.0262
	43	78.3200	23.0719	7.8271	0.3393	78.3140	28.1587	13.4727	0.4785	0.8177
	44	78.4840	25.8116	1.2587	0.0488	78.4760	23.8394	-1.5919	-0.0668	-0.0180
MLC EMS-	45	78.8180	33.3887	9.2346	0.2766	78.8120	44.9192	11.1399	0.2480	0.5246
	46	78.9860	37.8407	1.1470	0.0303	78.9780	39.6140	-1.7605	-0.0444	-0.0141
	47	79.1500	29.5788	8.1175	0.2744	79.1440	39.3324	10.2125	0.2597	0.5341
	48	79.3180	31.6336	-0.4616	-0.0146	79.3120	33.3230	-0.9736	-0.0292	-0.0438
	49	80.5280	25.6832	7.9388	0.3091	80.5240	37.6892	9.4817	0.2516	0.5607
	50	80.6940	30.9914	2.1747	0.0702	80.6900	33.8863	-1.4795	-0.0437	0.0265
	51	80.8580	29.2791	7.8271	0.2673	80.8520	41.2572	9.1444	0.2216	0.4890
	52	81.0260	32.1473	0.4768	0.0148	81.0200	37.1258	-1.5357	-0.0414	-0.0265
SC EMS-1	53	81.3540	20.4606	7.3132	0.3574	81.3540	33.5577	11.5334	0.3437	0.7011
	54	81.5160	23.7568	1.6162	0.0680	81.5100	29.4732	-2.2383	-0.0759	-0.0079
	55	81.6840	21.9161	7.8047	0.3561	81.6780	31.7737	10.3249	0.3250	0.6811
	56	81.8440	26.7106	1.6609	0.0622	81.8420	23.9333	-1.8168	-0.0759	-0.0137
	57	83.0560	21.1884	7.4473	0.3515	83.0540	28.6281	10.8027	0.3773	0.7288
	58	83.2140	24.5702	2.0183	0.0821	83.2080	24.3558	-1.1422	-0.0469	0.0352
	59	83.3820	22.1301	7.8047	0.3527	83.3760	28.3464	12.8544	0.4535	0.8061
	60	83.5440	24.0993	1.4598	0.0606	83.5320	24.5906	-2.2664	-0.0922	-0.0316

## CRIB #3

		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	51.8640	42.7853	7.0848	0.1656	51.8600	23.0528	7.8514	0.3406	0.5062
	2	52.1160	36.9163	-1.6538	-0.0448	52.1200	29.6329	-0.3708	-0.0125	-0.0573
	3	52.8240	33.9591	6.2364	0.1837	52.8200	31.0653	8.1054	0.2609	0.4446
	4	53.0760	25.4968	-0.5226	-0.0205	53.0780	39.4807	-1.4819	-0.0375	-0.0580
LOCO 4901	5	53.5340	41.4659	4.2002	0.1013	53.5300	23.5452	5.7879	0.2458	0.3471
	6	53.7860	35.1874	-1.3428	-0.0382	53.7860	32.6768	-0.4343	-0.0133	-0.0515
	7	54.4940	33.6406	5.0486	0.1501	54.4900	36.3026	6.5181	0.1796	0.3296
	8	54.7460	26.4522	-0.4943	-0.0187	54.7440	39.7045	-1.4184	-0.0357	-0.0544
MC EMS-1	9	55.2840	35.8244	4.8790	0.1362	55.2780	14.0555	3.9784	0.2831	0.4192
	10	55.4440	33.8681	-3.2658	-0.0964	55.4420	16.8308	2.5816	0.1534	0.0569
	11	57.0820	20.7197	3.6346	0.1754	57.0820	30.0358	-3.0057	-0.1001	0.0753
	12	57.2420	15.0328	3.2387	0.2154	57.2460	34.6016	4.3276	0.1251	0.3405
FC EMS-1	13	57.6640	37.9172	5.9253	0.1563	57.6600	14.4136	4.2006	0.2914	0.4477
	14	57.8260	30.0919	-3.0962	-0.1029	57.8280	22.3814	2.2959	0.1026	-0.0003
	15	58.6620	20.7652	2.8428	0.1369	58.6580	33.1244	6.0102	0.1814	0.3183
	16	58.8220	20.7197	3.1821	0.1536	58.8220	35.0044	-2.4025	-0.0686	0.0849
T-5	17	59.1820	30.5014	3.7195	0.1219	59.1760	13.0707	3.9149	0.2995	0.4215
	18	59.4060	22.8126	-2.3326	-0.1023	59.4040	19.1137	1.7562	0.0919	-0.0104
	19	60.8560	18.7634	3.6629	0.1952	60.8520	22.5604	6.9625	0.3086	0.5038
	20	61.0800	18.7179	0.4955	0.0265	61.0780	23.2766	-1.2914	-0.0555	-0.0290
SC EMS-2	21	61.5040	34.0955	4.5679	0.1340	61.5060	19.2927	5.9467	0.3082	0.4422
	22	61.6700	32.5032	-0.5509	-0.0170	61.6680	19.8746	-0.3391	-0.0171	-0.0340
	23	61.8460	34.3685	3.6346	0.1058	61.8400	22.5604	6.8038	0.3016	0.4073
	24	62.0060	30.1374	-2.3043	-0.0765	62.0040	24.1719	1.1213	0.0464	-0.0301
	25	63.2500	22.4031	5.8688	0.2620	63.2500	30.2596	9.1848	0.3035	0.5655
	26	63.4140	19.6278	-0.4378	-0.0223	63.4140	30.6177	-0.3391	-0.0111	-0.0334
	27	63.5900	20.3558	4.2002	0.2063	63.5860	29.9015	4.6133	0.1543	0.3606
	28	63.7500	18.5359	3.0973	0.1671	63.7500	31.4682	-3.5454	-0.1127	0.0544
TRIP-MLC	29	64.1160	46.8344	-2.9830	-0.0637	64.1120	22.6947	6.0736	0.2676	0.2039
	30	64.2860	47.7898	0.8066	0.0169	64.2860	22.3366	-1.7359	-0.0777	-0.0608
	31	64.4560	45.6515	4.7658	0.1044	64.4520	26.4995	7.2165	0.2723	0.3767
	32	64.6240	44.8326	-1.4842	-0.0331	64.6240	27.4843	-1.0375	-0.0378	-0.0709
	33	65.6580	29.6369	7.8767	0.2658	65.6560	40.1521	10.8355	0.2699	0.5356
	34	65.8260	26.2702	-0.4943	-0.0188	65.8260	42.9274	-1.8629	-0.0434	-0.0622
	35	65.9960	29.7279	9.1493	0.3078	65.9940	40.8684	9.5975	0.2348	0.5426
	36	66.1640	27.0892	1.7115	0.0632	66.1660	41.4503	-4.4343	-0.1070	-0.0438
LCC EMS-1	37	66.5280	33.0946	4.4830	0.1355	66.5240	17.6365	5.3117	0.3012	0.4366
	38	66.6880	27.3621	-1.1165	-0.0408	66.6900	21.7547	0.6451	0.0297	-0.0112
	39	66.8620	33.7316	4.8224	0.1430	66.8600	20.2327	6.1689	0.3049	0.4479
	40	67.0260	28.6360	-1.5124	-0.0528	67.0280	23.6347	2.3911	0.1012	0.0484
	41	68.2660	22.9036	6.2647	0.2735	68.2620	29.1853	8.4546	0.2897	0.5632
	42	68.4260	20.3558	1.0328	0.0507	68.4280	30.5282	-1.3549	-0.0444	0.0064
	43	68.5980	19.4914	7.3676	0.3780	68.6000	29.8567	7.6927	0.2577	0.6357
	44	68.7600	16.3976	1.4005	0.0854	68.7620	33.1244	-3.2914	-0.0994	-0.0140
MLC EMS-	45	69.1000	45.4240	2.9559	0.0651	69.0960	24.7985	4.1054	0.1656	0.2306
	46	69.2660	44.1956	0.3541	0.0080	69.2660	26.8576	-0.6565	-0.0244	-0.0164
	47	69.4340	46.6069	-2.3609	-0.0507	69.4320	27.8424	4.8356	0.1737	0.1230
	48	69.6040	43.8317	-1.9932	-0.0455	69.6020	29.0062	0.9308	0.0321	-0.0134
	49	70.8340	27.9991	3.7195	0.1328	70.8320	38.5855	5.4387	0.1410	0.2738
	50	70.9980	25.6333	-0.5509	-0.0215	71.0000	39.8836	-0.7835	-0.0196	-0.0411
	51	71.1680	25.4513	1.0328	0.0406	71.1680	41.9874	1.8832	0.0449	0.0854
	52	71.3380	25.4513	1.3722	0.0539	71.3360	42.3455	-4.5295	-0.1070	-0.0531
SC EMS-1	53	71.6740	36.6433	6.2364	0.1702	71.6700	15.1298	3.5975	0.2378	0.4080
	54	71.8340	35.7334	2.0509	0.0574	71.8360	16.2936	-1.0375	-0.0637	-0.0063
	55	72.0080	32.9126	3.5215	0.1070	72.0060	22.1128	7.9149	0.3579	0.4649
	56	72.1720	30.0464	-2.7285	-0.0908	72.1700	25.8728	2.7403	0.1059	0.0151
	57	73.4120	20.4013	6.6889	0.3279	73.4060	31.0206	11.3752	0.3667	0.6946
	58	73.5720	18.0810	-0.9186	-0.0508	73.5720	33.1244	2.8990	0.0875	-0.0367
	59	73.7460	21.8571	6.4627	0.2957	73.7420	26.6786	4.1689	0.1563	0.4519
	60	73.9060	20.7197	3.7477	0.1809	73.9060	27.9319	-3.5137	-0.1258	0.0551

Wayside Data From

Balloon Curving Buff and Draft Tests



WA07_RN001		CRIB #1								
	TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE	
LOCO 4900	1	7.7480	34.3120	13.8826	0.4046	7.7400	30.0457	10.9778	0.3654	0.7700
	2	8.1080	36.9246	2.8670	0.0776	8.0980	30.3585	-0.4792	-0.0158	0.0619
	3	9.0980	35.0584	14.1730	0.4043	9.0920	27.3652	11.7900	0.4308	0.8351
	4	9.4580	35.9915	2.3068	0.0641	9.4520	29.8224	-0.9281	-0.0311	0.0330
LOCO 4901	5	10.1000	33.2389	13.9448	0.4195	10.0980	30.2691	11.1915	0.3697	0.7893
	6	10.4620	37.1579	2.9707	0.0800	10.4520	29.6437	-0.7785	-0.0263	0.0537
	7	11.4580	33.0056	13.2602	0.4018	11.4520	30.7605	9.7808	0.3180	0.7197
	8	11.8180	37.6245	2.1616	0.0575	11.8100	30.4478	-0.8854	-0.0291	0.0284
MC EMS-1	9	12.5740	27.3137	11.0197	0.4035	12.5740	22.4063	7.7288	0.3449	0.7484
	10	12.8100	28.3401	2.0579	0.0726	12.8040	20.6640	0.2475	0.0120	0.0846
	11	15.1200	27.3137	10.2314	0.3746	15.1180	21.7809	6.8524	0.3146	0.6892
	12	15.3540	29.5065	2.5558	0.0866	15.3460	20.7533	-0.3937	-0.0190	0.0677
FC EMS-1	13	15.9380	26.5672	10.7293	0.4039	15.9340	24.8634	8.5838	0.3452	0.7491
	14	16.1700	26.8472	1.8090	0.0674	16.1600	23.6572	0.7392	0.0312	0.0986
	15	17.3340	31.8392	12.9490	0.4067	17.3280	21.8255	9.5884	0.4393	0.8460
	16	17.5640	31.0928	1.5808	0.0508	17.5560	23.2551	0.6964	0.0300	0.0808
T-5	17	18.0620	23.8612	10.4389	0.4375	18.0560	17.8941	6.7883	0.3794	0.8168
	18	18.3780	24.0945	1.8090	0.0751	18.3680	15.9731	0.0765	0.0048	0.0799
	19	20.3800	22.3683	8.1569	0.3647	20.3740	17.6708	5.1210	0.2898	0.6545
	20	20.6900	25.0276	2.7632	0.1104	20.6820	16.5986	-0.7357	-0.0443	0.0661
SC EMS-2	21	21.2760	28.3401	10.2937	0.3632	21.2700	23.1658	7.2158	0.3115	0.6747
	22	21.5040	30.0197	1.8297	0.0610	21.4920	22.4957	-0.0945	-0.0042	0.0567
	23	21.7380	27.5936	11.0197	0.3994	21.7380	23.1658	7.4295	0.3207	0.7201
	24	21.9620	27.8269	1.6430	0.0590	21.9520	24.1486	0.3972	0.0165	0.0755
	25	23.6400	26.6605	9.2357	0.3464	23.6440	23.5679	7.3440	0.3116	0.6580
	26	23.8700	26.6605	2.1409	0.0803	23.8640	22.5403	0.5040	0.0224	0.1027
	27	24.1020	24.3744	8.9660	0.3678	24.0980	23.5232	5.3348	0.2268	0.5946
	28	24.3240	23.2081	1.2696	0.0547	24.3160	24.0593	0.0338	0.0014	0.0561
TRIP-MLC	29	24.8200	42.3833	14.9406	0.3525	24.8200	27.5886	9.5457	0.3460	0.6985
	30	25.0500	41.4035	3.3856	0.0818	25.0420	28.0800	-0.5006	-0.0178	0.0639
	31	25.2760	39.0241	12.2437	0.3138	25.2740	29.2863	7.7288	0.2639	0.5777
	32	25.5060	39.7239	1.0621	0.0267	25.4980	28.4821	0.4399	0.0154	0.0422
	33	26.8920	36.6447	12.5341	0.3420	26.8860	25.8910	7.8784	0.3043	0.6463
	34	27.1180	37.0179	0.7717	0.0209	27.1120	27.3206	0.0979	0.0036	0.0244
	35	27.3420	41.4502	13.8411	0.3339	27.3400	29.2863	8.4555	0.2887	0.6226
	36	27.5740	41.5435	1.7052	0.0411	27.5660	29.1969	0.1620	0.0056	0.0466
LCC EMS-1	37	28.0700	29.5998	11.2894	0.3814	28.0680	19.9045	8.0280	0.4033	0.7847
	38	28.2900	27.3137	1.0621	0.0389	28.2860	21.7809	0.6109	0.0281	0.0669
	39	28.5220	25.7274	9.7336	0.3783	28.5200	22.5403	7.0448	0.3125	0.6909
	40	28.7480	24.7943	0.9584	0.0387	28.7400	23.4338	0.5895	0.0252	0.0638
	41	30.4200	24.7943	10.3144	0.4160	30.4180	24.8188	9.0540	0.3648	0.7808
	42	30.6440	25.7741	0.7510	0.0291	30.6380	22.8977	0.6750	0.0295	0.0586
	43	30.8760	25.1676	10.6256	0.4222	30.8740	21.4235	7.2799	0.3398	0.7620
	44	31.1000	23.3480	1.4770	0.0633	31.0960	23.1658	0.4185	0.0181	0.0813
MLC EMS-	45	31.5580	41.8234	8.5303	0.2040	31.5540	29.6437	4.7149	0.1591	0.3630
	46	31.7880	40.5637	0.6887	0.0170	31.7820	30.4925	0.2903	0.0095	0.0265
	47	32.0160	38.6042	5.3771	0.1393	32.0140	27.4099	0.2475	0.0090	0.1483
	48	32.2480	37.7178	0.5020	0.0133	32.2380	28.5268	-0.1372	-0.0048	0.0085
	49	33.9280	36.9246	8.4059	0.2277	33.9220	24.5507	4.7790	0.1947	0.4223
	50	34.1600	35.8982	0.4398	0.0123	34.1520	25.3549	-0.0731	-0.0029	0.0094
	51	34.3900	38.1377	6.8707	0.1802	34.3840	27.3206	0.1834	0.0067	0.1869
	52	34.6220	40.0505	0.5850	0.0146	34.6120	27.4993	-0.4792	-0.0174	-0.0028
SC EMS-1	53	35.0820	28.9466	11.2687	0.3893	35.0800	22.5403	8.7548	0.3884	0.7777
	54	35.3100	28.5267	0.5643	0.0198	35.3020	22.6744	0.6109	0.0269	0.0467
	55	35.5440	28.3868	10.9368	0.3853	35.5420	21.5575	8.1990	0.3803	0.7656
	56	35.7720	29.3199	1.6845	0.0575	35.7640	22.1829	0.1834	0.0083	0.0657
	57	37.4860	27.0338	9.8373	0.3639	37.4820	22.4957	7.6647	0.3407	0.7046
	58	37.7140	27.5003	0.6680	0.0243	37.7040	21.7809	0.4399	0.0202	0.0445
	59	37.9480	24.4211	9.8788	0.4045	37.9480	20.9320	6.8310	0.3263	0.7309
	60	38.1800	23.9079	1.5185	0.0635	38.1680	21.6022	0.5040	0.0233	0.0869

WA07_R		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE
LOCO 4900	1	7.8140	36.6287	15.3877	0.4201	7.8120	30.7045	10.4928	0.3417	0.7618
	2	8.1740	37.6476	1.0013	0.0266	8.1660	30.3561	-0.4001	-0.0132	0.0134
	3	9.1660	36.0266	15.6745	0.4351	9.1600	27.1330	12.0398	0.4437	0.8788
	4	9.5240	38.7592	1.4426	0.0372	9.5200	28.0477	-2.1189	-0.0755	-0.0383
LOCO 4901	5	10.1660	34.6371	14.4389	0.4169	10.1660	30.8788	10.2780	0.3329	0.7497
	6	10.5280	37.7866	1.0896	0.0288	10.5240	29.4850	-1.3239	-0.0449	-0.0161
	7	11.5260	34.4519	13.6004	0.3948	11.5200	31.4014	9.6120	0.3061	0.7009
	8	11.8860	39.5928	1.6191	0.0409	11.8780	28.2655	-2.3122	-0.0818	-0.0409
MC EMS-1	9	12.6420	27.6436	11.5925	0.4194	12.6400	22.7775	8.0221	0.3522	0.7716
	10	12.8780	29.5425	1.1778	0.0399	12.8680	19.6416	-0.1422	-0.0072	0.0326
	11	15.1860	28.9404	9.6508	0.3335	15.1800	22.4291	6.0669	0.2705	0.6040
	12	15.4200	31.1172	1.3323	0.0428	15.4160	20.5127	-0.4430	-0.0216	0.0212
FC EMS-1	13	16.0040	27.6899	11.3277	0.4091	16.0000	25.7393	8.3658	0.3250	0.7341
	14	16.2360	28.7088	1.0896	0.0380	16.2320	23.6922	0.3304	0.0140	0.0519
	15	17.3980	31.6267	12.9385	0.4091	17.3940	22.3855	8.9889	0.4016	0.8107
	16	17.6300	32.5993	0.1849	0.0057	17.6220	23.4309	0.7816	0.0334	0.0390
T-5	17	18.1260	23.4752	10.2465	0.4365	18.1240	19.2931	6.5181	0.3379	0.7743
	18	18.4440	25.0036	0.3173	0.0127	18.4320	16.2007	0.0511	0.0032	0.0159
	19	20.4440	23.1510	8.3048	0.3587	20.4360	18.1607	4.4556	0.2453	0.6041
	20	20.7560	23.9384	0.5600	0.0234	20.7460	17.4638	-0.2711	-0.0155	0.0079
SC EMS-2	21	21.3420	28.5236	10.0921	0.3538	21.3360	24.8246	6.4322	0.2591	0.6129
	22	21.5660	29.9130	0.9792	0.0327	21.5620	21.3838	-0.3141	-0.0147	0.0181
	23	21.8020	28.2457	10.9526	0.3878	21.7960	25.0859	7.2701	0.2898	0.6776
	24	22.0280	28.9867	0.5379	0.0186	22.0180	24.1713	-0.0348	-0.0014	0.0171
	25	23.7080	27.2267	10.2024	0.3747	23.7020	23.4744	6.8404	0.2914	0.6661
	26	23.9340	28.3846	1.3102	0.0462	23.9280	20.7740	-0.0778	-0.0037	0.0424
	27	24.1620	25.7447	9.2757	0.3603	24.1600	25.1295	5.1216	0.2038	0.5641
	28	24.3880	24.9110	0.2290	0.0092	24.3840	24.6068	-0.2067	-0.0084	0.0008
TRIP-MLC	29	24.8840	41.3065	13.9976	0.3389	24.8800	30.0077	8.9674	0.2988	0.6377
	30	25.1160	42.2791	2.5238	0.0597	25.1060	28.6139	-1.1305	-0.0395	0.0202
	31	25.3380	39.5465	11.9676	0.3026	25.3340	30.3561	6.8404	0.2253	0.5280
	32	25.5700	40.1486	0.0966	0.0024	25.5640	29.2237	0.0511	0.0018	0.0042
	33	26.9520	37.6939	11.6587	0.3093	26.9480	27.3944	6.6041	0.2411	0.5504
	34	27.1800	38.2960	-0.0137	-0.0004	27.1740	27.9170	-0.9372	-0.0336	-0.0339
	35	27.4080	42.2328	13.6666	0.3236	27.4000	31.4450	8.2584	0.2626	0.5862
	36	27.6380	42.2791	0.6483	0.0153	27.6300	29.7899	-0.7653	-0.0257	-0.0104
LCC EMS-1	37	28.1340	29.7278	10.7320	0.3610	28.1300	20.8176	7.3990	0.3554	0.7164
	38	28.3580	28.2457	0.4497	0.0159	28.3500	20.6433	-0.0133	-0.0007	0.0153
	39	28.5880	26.2541	9.2316	0.3516	28.5860	23.3437	6.2173	0.2663	0.6180
	40	28.8080	26.3004	-0.0578	-0.0022	28.8000	23.1695	0.0511	0.0022	0.0000
	41	30.4860	24.8647	10.3348	0.4156	30.4800	23.2566	7.7643	0.3339	0.7495
	42	30.7120	27.2731	0.3614	0.0133	30.7020	21.8193	-0.2067	-0.0095	0.0038
	43	30.9400	26.7173	10.4672	0.3918	30.9400	23.8228	6.5611	0.2754	0.6672
	44	31.1660	25.6983	0.4938	0.0192	31.1560	24.7811	-0.3141	-0.0127	0.0065
MLC EMS-	45	31.6240	43.3444	7.1574	0.1651	31.6160	31.2708	3.4458	0.1102	0.2753
	46	31.8540	42.4181	-0.1019	-0.0024	31.8460	30.3561	-0.9587	-0.0316	-0.0340
	47	32.0800	38.8981	3.9801	0.1023	32.0800	27.2201	1.2113	0.0445	0.1468
	48	32.3120	38.2497	-1.0507	-0.0275	32.3020	28.1348	-1.1091	-0.0394	-0.0669
	49	33.9900	38.3423	6.4072	0.1671	33.9860	25.5650	4.0044	0.1566	0.3237
	50	34.2240	37.2308	-0.9845	-0.0264	34.2160	24.8246	-0.3786	-0.0153	-0.0417
	51	34.4540	38.0181	5.1716	0.1360	34.4500	27.5686	2.4145	0.0876	0.2236
	52	34.6880	41.2139	-1.2493	-0.0303	34.6780	26.5233	-1.0876	-0.0410	-0.0713
SC EMS-1	53	35.1480	28.7088	10.9526	0.3815	35.1440	22.9517	7.7213	0.3364	0.7179
	54	35.3780	28.2457	0.1408	0.0050	35.3680	20.8176	0.0511	0.0025	0.0074
	55	35.6100	30.0056	10.6437	0.3547	35.6060	21.9500	6.9693	0.3175	0.6722
	56	35.8400	30.6541	0.3835	0.0125	35.8320	22.0806	-0.3571	-0.0162	-0.0037
	57	37.5500	26.9489	8.9006	0.3303	37.5440	22.2549	6.7330	0.3025	0.6328
	58	37.7800	28.7551	0.0966	0.0034	37.7700	20.9918	-0.2926	-0.0139	-0.0106
	59	38.0140	26.1152	9.4081	0.3603	38.0080	23.4309	6.5181	0.2782	0.6384
	60	38.2460	25.8836	0.2070	0.0080	38.2360	22.9082	-0.0133	-0.0006	0.0074

WA07_R		CRIB #3								
	TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE	
LOCO 4900	1	7.8780	36.0523	16.1552	0.4481	7.8780	28.0128	12.8436	0.4585	0.9066
	2	8.2400	38.6863	4.3620	0.1128	8.2340	27.5625	-0.6916	-0.0251	0.0877
	3	9.2320	35.5820	15.0568	0.4232	9.2300	25.7165	12.6314	0.4912	0.9143
	4	9.5920	39.8151	3.8609	0.0970	9.5880	25.2212	-1.1371	-0.0451	0.0519
LOCO 4901	5	10.2340	34.8294	15.4037	0.4423	10.2300	26.8421	12.2920	0.4579	0.9002
	6	10.5980	38.2630	3.9766	0.1039	10.5880	26.7521	-1.0311	-0.0385	0.0654
	7	11.5880	34.3120	14.9797	0.4366	11.5900	29.0033	10.7221	0.3697	0.8063
	8	11.9540	39.8622	3.8417	0.0964	11.9460	26.9322	-1.3493	-0.0501	0.0463
MC EMS-1	9	12.7100	28.5738	13.5345	0.4737	12.7100	20.1784	8.6854	0.4304	0.9041
	10	12.9440	30.9726	4.5161	0.1458	12.9380	18.8277	-0.2037	-0.0108	0.1350
	11	15.2540	28.7619	11.8002	0.4103	15.2500	19.9083	7.0307	0.3532	0.7634
	12	15.4880	31.3959	4.6125	0.1469	15.4800	18.7826	-0.6916	-0.0368	0.1101
FC EMS-1	13	16.0700	27.8212	12.7444	0.4581	16.0680	22.9700	9.4704	0.4123	0.8704
	14	16.3040	28.7149	3.9188	0.1365	16.2980	21.2590	0.1570	0.0074	0.1439
	15	17.4640	32.7599	13.9777	0.4267	17.4620	20.8538	9.3643	0.4491	0.8757
	16	17.6960	32.9010	3.5526	0.1080	17.6920	20.9438	0.1570	0.0075	0.1155
T-5	17	18.1920	24.0114	11.5304	0.4802	18.1920	17.7921	7.4762	0.4202	0.9004
	18	18.5080	25.1402	3.1094	0.1237	18.5040	14.6854	0.1146	0.0078	0.1315
	19	20.5120	23.6821	9.6998	0.4096	20.5100	16.1262	5.4820	0.3399	0.7495
	20	20.8200	25.7987	3.2250	0.1250	20.8140	15.8110	-0.3946	-0.0250	0.1001
SC EMS-2	21	21.4040	29.8437	12.0507	0.4038	21.4040	22.7899	7.0307	0.3085	0.7123
	22	21.6320	31.3488	3.5719	0.1139	21.6240	21.3040	-0.8825	-0.0414	0.0725
	23	21.8640	28.7149	12.0700	0.4203	21.8660	23.5553	8.1763	0.3471	0.7675
	24	22.0920	30.0319	3.7646	0.1254	22.0840	22.5197	-0.3097	-0.0138	0.1116
	25	23.7720	28.1505	12.1278	0.4308	23.7720	22.1145	7.4550	0.3371	0.7679
	26	23.9980	30.1730	4.3620	0.1446	23.9920	20.9438	-0.5007	-0.0239	0.1207
	27	24.2240	26.4572	8.9868	0.3397	24.2280	24.0055	4.8455	0.2019	0.5415
	28	24.4520	26.3631	2.9745	0.1128	24.4440	22.9700	-0.6704	-0.0292	0.0836
TRIP-MLC	29	24.9480	41.6495	15.3651	0.3689	24.9480	27.5625	10.2766	0.3729	0.7418
	30	25.1780	42.0728	5.0171	0.1193	25.1720	26.3018	-1.4554	-0.0553	0.0639
	31	25.4020	40.5677	13.4189	0.3308	25.4000	28.1028	8.9400	0.3181	0.6489
	32	25.6320	40.2855	2.9745	0.0738	25.6260	26.2118	-0.1612	-0.0062	0.0677
	33	27.0140	37.2282	12.4746	0.3351	27.0140	25.1762	6.9458	0.2759	0.6110
	34	27.2460	38.8744	2.8974	0.0745	27.2400	25.4013	-1.2008	-0.0473	0.0273
	35	27.4720	42.6843	15.1532	0.3550	27.4720	27.8777	9.5340	0.3420	0.6970
	36	27.7000	42.8724	3.6490	0.0851	27.6940	26.2568	-0.5219	-0.0199	0.0652
LCC EMS-1	37	28.1960	30.1259	12.3397	0.4096	28.1960	18.4675	7.9853	0.4324	0.8420
	38	28.4220	28.9500	3.4177	0.1181	28.4140	19.7282	-0.3097	-0.0157	0.1024
	39	28.6500	27.4449	10.7596	0.3920	28.6480	22.7899	7.4125	0.3253	0.7173
	40	28.8740	27.6801	2.8782	0.1040	28.8680	21.3491	-0.1825	-0.0086	0.0954
	41	30.5500	26.7394	12.3590	0.4622	30.5460	22.0695	8.3036	0.3763	0.8385
	42	30.7740	29.1382	3.3407	0.1147	30.7700	20.9889	-0.3522	-0.0168	0.0979
	43	31.0040	27.6331	12.2049	0.4417	31.0060	23.0600	7.7308	0.3352	0.7769
	44	31.2280	25.3754	3.4563	0.1362	31.2240	22.9700	-0.4582	-0.0200	0.1163
MLC EMS-	45	31.6860	44.7538	9.5841	0.2142	31.6840	29.1834	4.9092	0.1682	0.3824
	46	31.9180	43.8131	2.6084	0.0595	31.9120	29.0033	-0.8613	-0.0297	0.0298
	47	32.1460	40.6147	5.9228	0.1458	32.1440	27.1573	-1.1371	-0.0419	0.1040
	48	32.3760	39.0626	2.3386	0.0599	32.3680	26.0317	-1.0311	-0.0396	0.0203
	49	34.0560	39.9092	8.6977	0.2179	34.0540	24.4108	5.1001	0.2089	0.4269
	50	34.2900	39.8622	1.9918	0.0500	34.2840	23.8705	-0.2673	-0.0112	0.0388
	51	34.5180	42.4961	6.8863	0.1621	34.5180	27.6526	2.7240	0.0985	0.2606
	52	34.7520	42.4961	1.9147	0.0451	34.7460	25.8966	-0.7340	-0.0284	0.0167
SC EMS-1	53	35.2120	29.5145	12.4554	0.4220	35.2120	20.4936	8.0914	0.3948	0.8168
	54	35.4380	30.5963	2.9553	0.0966	35.4340	19.6831	-0.2673	-0.0136	0.0830
	55	35.6760	30.8785	11.9929	0.3884	35.6760	21.4841	8.4733	0.3944	0.7828
	56	35.9020	31.2548	3.7261	0.1192	35.8960	20.4486	-0.3946	-0.0193	0.0999
	57	37.6160	29.0912	11.5304	0.3964	37.6140	21.2140	7.6671	0.3614	0.7578
	58	37.8440	31.2548	2.8782	0.0921	37.8400	20.1784	-0.3522	-0.0175	0.0746
	59	38.0800	26.5513	11.1835	0.4212	38.0780	22.3396	7.7308	0.3461	0.7673
	60	38.3080	26.7394	3.4177	0.1278	38.3020	20.6287	-0.1825	-0.0088	0.1190

WA07_RN001		CRIB #								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE
LOCO 49	1	7.9500	36.9125	15.2961	0.4144	7.9460	28.0280	12.0805	0.4310	0.8454
	2	8.3060	42.0814	3.7305	0.0887	8.3060	25.6663	-1.1986	-0.0467	0.0420
	3	9.3000	37.0065	13.3397	0.3605	9.2980	26.8909	11.0028	0.4092	0.7696
	4	9.6600	41.7055	3.4620	0.0830	9.6500	25.2290	-1.2371	-0.0490	0.0340
LOCO 49	5	10.3020	36.9125	14.9316	0.4045	10.3000	28.2467	11.1952	0.3963	0.8009
	6	10.6640	41.1416	3.1743	0.0772	10.6600	27.5469	-1.1408	-0.0414	0.0358
	7	11.6620	34.6100	13.0712	0.3777	11.6580	30.3897	9.9250	0.3266	0.7043
	8	12.0220	42.2224	3.0017	0.0711	12.0140	27.0658	-1.1793	-0.0436	0.0275
MC EMS	9	12.7760	29.4881	12.4766	0.4231	12.7760	21.9051	8.0775	0.3688	0.7919
	10	13.0160	29.9580	2.9250	0.0976	13.0080	18.7999	-0.3710	-0.0197	0.0779
	11	15.3220	31.0858	11.2491	0.3619	15.3220	21.2491	6.7304	0.3167	0.6786
	12	15.5520	31.0858	2.8291	0.0910	15.5480	20.2432	-0.7175	-0.0354	0.0556
FC EMS-	13	16.1380	28.3134	11.6327	0.4109	16.1340	24.7916	8.9435	0.3608	0.7716
	14	16.3720	29.9580	2.8482	0.0951	16.3620	21.4678	0.2448	0.0114	0.1065
	15	17.5320	32.9654	13.0712	0.3965	17.5280	21.9051	8.7896	0.4013	0.7978
	16	17.7640	33.2473	2.2153	0.0666	17.7580	21.5115	0.4950	0.0230	0.0896
T-5	17	18.2600	24.6011	10.7504	0.4370	18.2600	17.7066	6.8266	0.3855	0.8225
	18	18.5760	26.3398	2.1961	0.0834	18.5700	14.8638	-0.1594	-0.0107	0.0727
	19	20.5780	25.8699	8.8899	0.3436	20.5720	18.1439	5.4794	0.3020	0.6456
	20	20.8880	26.0108	2.2920	0.0881	20.8780	16.0884	-0.5827	-0.0362	0.0519
SC EMS-	21	21.4660	30.5219	8.8708	0.2906	21.4720	23.3484	5.5372	0.2372	0.5278
	22	21.6980	30.7098	2.5989	0.0846	21.6880	20.7243	-1.0254	-0.0495	0.0351
	23	21.9300	28.1724	10.8655	0.3857	21.9260	23.8295	7.5964	0.3188	0.7045
	24	22.1600	29.7700	2.2728	0.0764	22.1480	22.4737	-0.0631	-0.0028	0.0735
	25	23.8340	28.2664	10.1366	0.3586	23.8400	23.2609	7.2115	0.3100	0.6686
	26	24.0600	29.7700	3.1168	0.1047	24.0500	20.1995	-0.5250	-0.0260	0.0787
	27	24.2900	25.1180	8.0268	0.3196	24.2920	24.1793	4.4017	0.1820	0.5016
	28	24.5140	25.3060	1.7550	0.0694	24.5120	22.7798	-0.6982	-0.0307	0.0387
TRIP-ML	29	25.0140	41.3296	14.3179	0.3464	25.0080	28.5966	9.4054	0.3289	0.6753
	30	25.2420	42.6453	3.3469	0.0785	25.2360	27.5032	-1.6412	-0.0597	0.0188
	31	25.4660	40.8597	13.3205	0.3260	25.4680	28.7715	8.6356	0.3001	0.6262
	32	25.6960	40.7657	1.9276	0.0473	25.6880	27.5032	0.0139	0.0005	0.0478
	33	27.0820	37.3354	11.3642	0.3044	27.0780	26.2786	6.1530	0.2342	0.5385
	34	27.3100	39.9669	1.7358	0.0434	27.3040	26.0162	-0.9484	-0.0365	0.0070
	35	27.5340	42.5983	13.8959	0.3262	27.5360	29.4713	9.0205	0.3061	0.6323
	36	27.7600	46.9684	2.9441	0.0627	27.7580	35.4192	-0.3326	-0.0094	0.0533
LCC EMS	37	28.2620	31.6496	12.0163	0.3797	28.2620	20.2432	7.7311	0.3819	0.7616
	38	28.4840	29.6761	1.8317	0.0617	28.4760	20.4181	-0.2363	-0.0116	0.0502
	39	28.7140	26.6217	10.0216	0.3764	28.7160	23.3484	6.9613	0.2982	0.6746
	40	28.9420	27.0446	1.6207	0.0599	28.9360	20.7680	-0.1016	-0.0049	0.0550
	41	30.6140	27.7495	11.3258	0.4081	30.6140	22.8236	8.1160	0.3556	0.7637
	42	30.8380	29.3001	1.9560	0.0671	30.8300	20.5931	-0.2363	-0.0115	0.0556
	43	31.0660	25.1180	10.9806	0.4372	31.0660	22.6049	7.1153	0.3148	0.7519
	44	31.2940	25.4470	2.1961	0.0863	31.2900	21.9926	-0.4288	-0.0195	0.0668
MLC EM	45	31.7520	45.4647	8.7173	0.1917	31.7480	30.3022	4.5364	0.1497	0.3415
	46	31.9840	44.1490	1.8509	0.0419	31.9760	29.6025	-0.8714	-0.0294	0.0125
	47	32.2100	41.8465	6.3965	0.1529	32.2120	27.4595	2.4580	0.0895	0.2424
	48	32.4420	40.8127	1.7166	0.0421	32.4320	27.5032	-0.9484	-0.0345	0.0076
	49	34.1240	39.9669	8.0844	0.2023	34.1220	25.1415	4.0361	0.1605	0.3628
	50	34.3520	40.8127	1.6974	0.0416	34.3480	23.9607	-0.8522	-0.0356	0.0060
	51	34.5840	43.4441	7.2980	0.1680	34.5860	27.7656	2.8621	0.1031	0.2711
	52	34.8180	43.8670	1.4673	0.0335	34.8120	25.9287	-0.9292	-0.0358	-0.0024
SC EMS-	53	35.2800	30.7568	11.7861	0.3832	35.2760	22.5611	8.1737	0.3623	0.7455
	54	35.5060	30.6159	1.3714	0.0448	35.4980	21.2928	-0.0631	-0.0030	0.0418
	55	35.7420	30.5219	11.3066	0.3704	35.7380	21.6427	7.7888	0.3599	0.7303
	56	35.9680	31.8846	2.5222	0.0791	35.9640	21.2054	-0.5443	-0.0257	0.0534
	57	37.6800	29.3001	10.7504	0.3669	37.6820	21.9489	7.4424	0.3391	0.7060
	58	37.9120	30.5689	1.7550	0.0574	37.9020	19.7621	-0.3903	-0.0198	0.0377
	59	38.1440	25.4470	10.1942	0.4006	38.1480	22.0801	7.0768	0.3205	0.7211
	60	38.3800	26.1048	2.1386	0.0819	38.3700	20.5931	-0.3326	-0.0162	0.0658

WA07_RN001		CRIB #								
	TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE	
LOCO 49	1	8.0160	41.0154	17.5688	0.4284	8.0140	26.6667	13.8507	0.5194	0.9478
	2	8.3760	45.8482	4.7803	0.1043	8.3700	25.6890	-1.5576	-0.0606	0.0436
	3	9.3680	39.1769	14.8561	0.3792	9.3640	24.7113	11.6158	0.4701	0.8493
	4	9.7280	44.7976	4.6909	0.1047	9.7220	23.9114	-2.1163	-0.0885	0.0162
LOCO 49	5	10.3720	39.9648	16.6447	0.4165	10.3660	26.3556	12.9052	0.4897	0.9061
	6	10.7320	44.1147	4.5717	0.1036	10.7260	24.8446	-1.8800	-0.0757	0.0280
	7	11.7280	38.2839	14.7667	0.3857	11.7200	27.3333	10.9496	0.4006	0.7863
	8	12.0900	44.5875	3.9158	0.0878	12.0820	25.6001	-2.0304	-0.0793	0.0085
MC EMS	9	12.8460	30.5620	13.9320	0.4559	12.8420	20.6673	9.7032	0.4695	0.9254
	10	13.0820	31.8227	3.3196	0.1043	13.0740	19.3785	-0.1608	-0.0083	0.0960
	11	15.3900	30.9822	12.2328	0.3948	15.3860	19.6452	7.5327	0.3834	0.7783
	12	15.6220	32.8207	3.7072	0.1130	15.6160	20.1340	-0.9344	-0.0464	0.0665
FC EMS-	13	16.2060	29.3012	12.8887	0.4399	16.2020	23.1559	9.8536	0.4255	0.8654
	14	16.4380	32.8207	3.7370	0.1139	16.4300	20.9784	0.3765	0.0180	0.1318
	15	17.6000	33.7663	14.2599	0.4223	17.5960	21.0228	10.0685	0.4789	0.9012
	16	17.8300	35.8675	3.1706	0.0884	17.8240	21.5116	0.5269	0.0245	0.1129
T-5	17	18.3280	26.4121	12.0540	0.4564	18.3220	17.3787	7.7046	0.4433	0.8997
	18	18.6420	29.0386	2.8725	0.0989	18.6340	14.1790	-0.0103	-0.0007	0.0982
	19	20.6400	25.3090	10.2654	0.4056	20.6360	16.2677	6.2863	0.3864	0.7920
	20	20.9520	27.9880	3.0215	0.1080	20.9440	15.2012	-0.7840	-0.0516	0.0564
SC EMS-	21	21.5360	31.7176	11.0404	0.3481	21.5340	21.9560	6.2003	0.2824	0.6305
	22	21.7620	33.5036	3.6774	0.1098	21.7540	19.8229	-0.9989	-0.0504	0.0594
	23	21.9980	29.7740	11.9347	0.4008	21.9960	23.9558	8.8436	0.3692	0.7700
	24	22.2220	32.8207	3.4389	0.1048	22.2180	22.0005	-0.2682	-0.0122	0.0926
	25	23.9040	30.1942	12.1136	0.4012	23.8980	20.6228	7.7691	0.3767	0.7779
	26	24.1260	31.2448	4.3332	0.1387	24.1180	20.7117	-0.1393	-0.0067	0.1320
	27	24.3560	26.9374	9.3711	0.3479	24.3520	23.7781	6.3722	0.2680	0.6159
	28	24.5800	28.2506	2.7831	0.0985	24.5720	21.7783	-0.9989	-0.0459	0.0527
TRIP-ML	29	25.0780	43.3267	15.8697	0.3663	25.0720	27.7332	10.7132	0.3863	0.7526
	30	25.3060	45.4279	4.3034	0.0947	25.3000	27.2444	-1.7725	-0.0651	0.0297
	31	25.5320	43.3793	15.5417	0.3583	25.5300	28.7998	10.6057	0.3683	0.7265
	32	25.7620	44.4299	2.8725	0.0647	25.7540	27.2000	-0.0103	-0.0004	0.0643
	33	27.1460	39.4921	12.5309	0.3173	27.1420	26.1334	7.4037	0.2833	0.6006
	34	27.3740	42.6964	2.2763	0.0533	27.3700	25.8668	-1.1278	-0.0436	0.0097
	35	27.6000	44.6400	15.7802	0.3535	27.5960	29.0664	10.9926	0.3782	0.7317
	36	27.8300	46.0583	3.1408	0.0682	27.8240	27.1555	-0.2252	-0.0083	0.0599
LCC EMS	37	28.3280	32.4005	13.3954	0.4134	28.3220	19.1119	8.7146	0.4560	0.8694
	38	28.5500	31.6126	2.9023	0.0918	28.5400	19.1563	-0.0318	-0.0017	0.0902
	39	28.7800	28.1981	11.5174	0.4085	28.7760	21.9560	8.3708	0.3813	0.7897
	40	29.0040	31.2974	2.6936	0.0861	28.9960	20.5784	-0.0963	-0.0047	0.0814
	41	30.6820	29.2487	12.7992	0.4376	30.6760	20.3562	8.7146	0.4281	0.8657
	42	30.9060	30.6145	2.7533	0.0899	30.8980	19.6896	-0.0748	-0.0038	0.0861
	43	31.1360	27.4102	12.2925	0.4485	31.1320	22.9337	8.7576	0.3819	0.8303
	44	31.3600	28.5658	2.8725	0.1006	31.3520	22.7560	-0.5906	-0.0260	0.0746
MLC EM	45	31.8180	47.5817	11.2193	0.2358	31.8140	28.7109	6.0284	0.2100	0.4458
	46	32.0480	47.8443	3.0514	0.0638	32.0400	27.2000	-1.2997	-0.0478	0.0160
	47	32.2760	43.0641	7.5229	0.1747	32.2760	25.6890	3.5140	0.1368	0.3115
	48	32.5080	43.3267	2.3359	0.0539	32.5000	26.0445	-0.9989	-0.0384	0.0156
	49	34.1880	42.0135	9.9673	0.2372	34.1860	23.5559	5.8779	0.2495	0.4868
	50	34.4200	42.6964	2.5446	0.0596	34.4140	21.6894	-0.8484	-0.0391	0.0205
	51	34.6500	43.8520	9.1028	0.2076	34.6480	25.0224	4.3092	0.1722	0.3798
	52	34.8840	46.6361	2.3061	0.0495	34.8760	23.8225	-0.9344	-0.0392	0.0102
SC EMS-	53	35.3460	31.8227	13.4252	0.4219	35.3420	20.9339	8.9510	0.4276	0.8495
	54	35.5720	32.6106	2.5148	0.0771	35.5640	19.6452	0.1831	0.0093	0.0864
	55	35.8080	32.0853	13.1271	0.4091	35.8060	20.5784	8.8006	0.4277	0.8368
	56	36.0360	34.4492	3.3495	0.0972	36.0280	20.2229	-0.4401	-0.0218	0.0755
	57	37.7500	31.1923	12.4415	0.3989	37.7420	20.0451	8.2418	0.4112	0.8100
	58	37.9780	32.5056	2.8129	0.0865	37.9700	18.7564	-0.2682	-0.0143	0.0722
	59	38.2140	27.1475	11.4578	0.4221	38.2100	22.2671	8.4138	0.3779	0.7999
	60	38.4420	30.8246	3.2302	0.1048	38.4360	20.2229	-0.3112	-0.0154	0.0894

WA07_RN002		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	15.974	35.048	14.305	0.408	15.968	28.422	10.782	0.379	0.788
	2	16.338	38.407	3.165	0.082	16.330	30.031	-0.483	-0.016	0.066
	3	17.342	35.608	15.093	0.424	17.340	27.439	11.744	0.428	0.852
	4	17.708	38.267	2.978	0.078	17.698	28.735	-0.910	-0.032	0.046
LOCO 4901	5	18.356	33.462	13.600	0.406	18.350	30.433	9.884	0.325	0.731
	6	18.718	37.054	2.978	0.080	18.712	29.405	-0.889	-0.030	0.050
	7	19.716	34.302	13.620	0.397	19.714	29.494	9.264	0.314	0.711
	8	20.080	38.827	3.103	0.080	20.072	29.584	-0.782	-0.026	0.053
MC EMS-1	9	20.840	28.143	11.027	0.392	20.836	21.944	6.443	0.294	0.685
	10	21.074	27.817	1.671	0.060	21.068	20.559	0.501	0.024	0.084
	11	23.380	28.237	11.359	0.402	23.378	20.783	6.999	0.337	0.739
	12	23.612	29.356	2.397	0.082	23.604	21.185	0.116	0.005	0.087
FC EMS-1	13	24.194	28.003	10.965	0.392	24.190	24.223	8.025	0.331	0.723
	14	24.424	27.723	1.650	0.060	24.416	23.151	0.800	0.035	0.094
	15	25.580	33.089	13.205	0.399	25.578	21.140	8.837	0.418	0.817
	16	25.810	31.829	1.567	0.049	25.800	22.659	0.800	0.035	0.085
T-5	17	26.304	23.664	10.778	0.455	26.300	18.728	7.255	0.387	0.843
	18	26.618	24.364	1.630	0.067	26.608	15.645	0.265	0.017	0.084
	19	28.608	21.845	8.517	0.390	28.606	17.253	5.695	0.330	0.720
	20	28.922	24.271	2.003	0.083	28.910	17.119	-0.119	-0.007	0.076
SC EMS-2	21	29.504	28.237	10.280	0.364	29.502	23.910	7.854	0.328	0.693
	22	29.730	28.796	1.402	0.049	29.722	22.972	0.672	0.029	0.078
	23	29.966	27.723	11.338	0.409	29.966	23.329	8.281	0.355	0.764
	24	30.194	27.303	1.816	0.067	30.188	24.446	0.330	0.013	0.080
	25	31.894	26.044	10.737	0.412	31.886	23.151	9.200	0.397	0.810
	26	32.120	26.557	1.796	0.068	32.112	22.614	0.543	0.024	0.092
	27	32.356	24.831	9.471	0.381	32.350	23.329	5.844	0.251	0.632
	28	32.582	23.478	0.987	0.042	32.574	25.116	0.351	0.014	0.056
TRIP-MLC	29	33.090	41.347	16.836	0.407	33.084	28.199	11.423	0.405	0.812
	30	33.324	40.460	2.937	0.073	33.318	28.735	-0.055	-0.002	0.071
	31	33.554	39.387	12.874	0.327	33.554	28.780	7.725	0.268	0.595
	32	33.790	39.294	0.738	0.019	33.782	28.244	0.607	0.022	0.040
	33	35.212	37.101	12.957	0.349	35.206	25.920	7.939	0.306	0.656
	34	35.446	37.474	0.655	0.017	35.438	26.546	0.180	0.007	0.024
	35	35.676	42.046	14.865	0.354	35.674	28.690	9.093	0.317	0.670
	36	35.912	40.973	1.485	0.036	35.906	28.824	0.330	0.011	0.048
LCC EMS-1	37	36.422	29.123	11.359	0.390	36.416	19.934	8.409	0.422	0.812
	38	36.650	27.537	0.862	0.031	36.644	21.676	0.800	0.037	0.068
	39	36.890	25.344	9.948	0.393	36.886	23.106	7.298	0.316	0.708
	40	37.118	24.737	0.821	0.033	37.110	23.374	0.607	0.026	0.059
	41	38.842	24.737	10.301	0.416	38.838	23.285	8.623	0.370	0.787
	42	39.074	25.297	0.696	0.028	39.066	22.883	0.714	0.031	0.059
	43	39.310	25.624	10.695	0.417	39.308	22.391	7.276	0.325	0.742
	44	39.542	23.291	1.443	0.062	39.532	24.267	0.351	0.014	0.076
MLC EMS-	45	40.014	42.046	8.870	0.211	40.008	29.450	4.434	0.151	0.362
	46	40.250	40.367	0.800	0.020	40.242	30.388	0.159	0.005	0.025
	47	40.484	38.594	5.488	0.142	40.482	27.261	-0.034	-0.001	0.141
	48	40.722	37.614	0.530	0.014	40.714	28.512	-0.269	-0.009	0.005
	49	42.450	36.821	7.957	0.216	42.444	24.446	4.626	0.189	0.405
	50	42.688	35.328	0.095	0.003	42.682	25.161	0.094	0.004	0.006
	51	42.922	38.314	6.754	0.176	42.922	26.948	0.351	0.013	0.189
	52	43.162	39.900	0.800	0.020	43.152	26.457	-0.483	-0.018	0.002
SC EMS-1	53	43.634	29.263	10.986	0.375	43.628	22.257	8.131	0.365	0.741
	54	43.864	27.723	0.406	0.015	43.854	22.436	0.693	0.031	0.046
	55	44.104	28.890	10.778	0.373	44.104	21.185	8.025	0.379	0.752
	56	44.338	29.590	1.588	0.054	44.330	21.989	0.308	0.014	0.068
	57	46.078	26.884	10.031	0.373	46.076	22.436	8.324	0.371	0.744
	58	46.308	27.163	0.862	0.032	46.300	21.632	0.458	0.021	0.053
	59	46.546	24.551	9.824	0.400	46.548	20.738	7.212	0.348	0.748
	60	46.780	23.758	1.339	0.056	46.770	22.123	0.501	0.023	0.079

WA07_RN002		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	16.042	36.606	15.517	0.424	16.036	29.501	11.078	0.376	0.799
	2	16.406	39.153	1.175	0.030	16.398	29.196	-0.996	-0.034	-0.004
	3	17.410	34.938	15.164	0.434	17.404	29.414	11.723	0.399	0.833
	4	17.776	40.079	1.241	0.031	17.768	27.410	-1.448	-0.053	-0.022
LOCO 4901	5	18.424	34.521	14.105	0.409	18.414	29.893	10.090	0.338	0.746
	6	18.788	38.458	1.042	0.027	18.780	29.196	-1.834	-0.063	-0.036
	7	19.784	34.382	14.502	0.422	19.782	30.502	9.510	0.312	0.734
	8	20.152	40.172	1.440	0.036	20.144	31.069	-2.114	-0.068	-0.032
MC EMS-1	9	20.910	27.620	10.905	0.395	20.902	23.185	7.297	0.315	0.710
	10	21.142	29.612	1.109	0.037	21.134	19.527	-0.202	-0.010	0.027
	11	23.446	28.732	11.611	0.404	23.444	22.183	7.125	0.321	0.725
	12	23.680	30.399	1.109	0.036	23.674	20.223	-0.438	-0.022	0.015
FC EMS-1	13	24.258	28.686	11.258	0.392	24.254	24.797	7.576	0.306	0.698
	14	24.492	29.566	0.998	0.034	24.486	23.229	0.207	0.009	0.043
	15	25.644	32.947	13.266	0.403	25.642	21.530	7.834	0.364	0.767
	16	25.876	33.363	0.204	0.006	25.870	23.577	0.379	0.016	0.022
T-5	17	26.370	22.479	10.442	0.465	26.364	19.831	6.889	0.347	0.812
	18	26.684	24.980	0.292	0.012	26.672	15.694	-0.008	-0.001	0.011
	19	28.676	22.479	9.295	0.413	28.670	18.089	5.492	0.304	0.717
	20	28.984	24.147	0.513	0.021	28.976	17.218	-0.330	-0.019	0.002
SC EMS-2	21	29.568	28.037	9.471	0.338	29.564	25.015	6.760	0.270	0.608
	22	29.798	30.029	0.822	0.027	29.786	21.922	-0.911	-0.042	-0.014
	23	30.032	28.223	11.236	0.398	30.030	25.102	7.555	0.301	0.699
	24	30.258	29.056	0.778	0.027	30.254	24.013	-0.395	-0.016	0.010
	25	31.956	25.907	10.530	0.406	31.954	24.274	8.113	0.334	0.741
	26	32.184	28.408	1.351	0.048	32.174	20.746	-0.395	-0.019	0.029
	27	32.416	25.536	8.522	0.334	32.418	26.103	5.019	0.192	0.526
	28	32.648	25.397	0.336	0.013	32.640	24.840	-0.846	-0.034	-0.021
TRIP-MLC	29	33.156	41.005	16.841	0.411	33.148	31.417	10.648	0.339	0.750
	30	33.390	42.210	2.675	0.063	33.380	29.283	-1.276	-0.044	0.020
	31	33.618	40.357	12.362	0.306	33.616	30.198	6.889	0.228	0.534
	32	33.854	40.079	-0.149	-0.004	33.844	28.978	0.099	0.003	-0.000
	33	35.274	37.810	12.141	0.321	35.270	27.497	6.523	0.237	0.558
	34	35.512	39.153	0.027	0.001	35.502	26.016	-0.975	-0.037	-0.037
	35	35.740	42.024	14.767	0.351	35.738	29.762	8.457	0.284	0.636
	36	35.980	42.071	0.314	0.007	35.970	29.065	-0.438	-0.015	-0.008
LCC EMS-1	37	36.488	29.658	10.861	0.366	36.488	20.964	7.576	0.361	0.728
	38	36.718	28.084	0.491	0.017	36.710	20.659	-0.223	-0.011	0.007
	39	36.952	27.018	9.648	0.357	36.948	23.185	6.502	0.280	0.638
	40	37.184	26.833	-0.039	-0.001	37.174	23.055	-0.073	-0.003	-0.005
	41	38.908	25.166	10.354	0.411	38.902	24.056	7.555	0.314	0.725
	42	39.138	27.945	0.469	0.017	39.132	21.574	-0.438	-0.020	-0.004
	43	39.378	26.463	10.795	0.408	39.370	24.274	6.974	0.287	0.695
	44	39.608	24.980	0.557	0.022	39.600	25.319	-0.416	-0.016	0.006
MLC EMS-	45	40.078	44.618	7.353	0.165	40.076	31.069	3.129	0.101	0.266
	46	40.316	42.163	-0.105	-0.002	40.308	30.546	-0.868	-0.028	-0.031
	47	40.550	39.431	3.558	0.090	40.546	27.062	0.894	0.033	0.123
	48	40.788	38.504	-1.076	-0.028	40.780	27.933	-1.190	-0.043	-0.071
	49	42.516	39.338	6.581	0.167	42.510	26.452	3.515	0.133	0.300
	50	42.756	38.782	-0.921	-0.024	42.746	25.407	-0.588	-0.023	-0.047
	51	42.990	40.542	5.235	0.129	42.984	27.846	1.883	0.068	0.197
	52	43.228	42.024	-1.252	-0.030	43.218	26.670	-1.297	-0.049	-0.078
SC EMS-1	53	43.698	28.176	10.221	0.363	43.694	22.837	7.125	0.312	0.675
	54	43.930	29.056	0.248	0.009	43.920	20.267	-0.352	-0.017	-0.009
	55	44.172	30.029	10.354	0.345	44.170	22.706	6.931	0.305	0.650
	56	44.404	30.538	0.380	0.012	44.396	22.096	-0.395	-0.018	-0.005
	57	46.144	26.926	9.162	0.340	46.142	22.445	7.039	0.314	0.654
	58	46.376	29.056	0.469	0.016	46.368	20.572	-0.760	-0.037	-0.021
	59	46.614	26.555	9.206	0.347	46.610	23.926	6.953	0.291	0.637
60	46.846	26.277	0.314	0.012	46.840	22.706	-0.180	-0.008	0.004	

WA07_RN002		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	16.108	36.238	16.559	0.457	16.106	27.675	13.592	0.491	0.948
	2	16.474	40.753	4.689	0.115	16.470	26.414	-0.813	-0.031	0.084
	3	17.474	34.827	16.482	0.473	17.474	26.594	13.719	0.516	0.989
	4	17.840	40.565	4.554	0.112	17.836	26.099	-1.259	-0.048	0.064
LOCO 4901	5	18.488	35.344	15.422	0.436	18.488	26.099	12.149	0.465	0.902
	6	18.852	39.765	3.976	0.100	18.850	26.865	-1.259	-0.047	0.053
	7	19.854	33.839	15.885	0.469	19.852	28.035	12.255	0.437	0.907
	8	20.216	40.659	4.535	0.112	20.212	26.189	-1.513	-0.058	0.054
MC EMS-1	9	20.974	28.900	13.630	0.472	20.970	19.481	8.161	0.419	0.891
	10	21.210	31.252	4.130	0.132	21.206	18.940	-0.007	-0.000	0.132
	11	23.512	29.324	13.380	0.456	23.512	19.210	7.821	0.407	0.863
	12	23.744	30.829	4.323	0.140	23.738	19.435	-0.283	-0.015	0.126
FC EMS-1	13	24.326	29.559	12.956	0.438	24.324	22.272	8.500	0.382	0.820
	14	24.556	28.524	3.513	0.123	24.548	21.552	0.269	0.012	0.136
	15	25.712	33.557	14.305	0.426	25.710	20.201	8.797	0.435	0.862
	16	25.940	32.569	3.205	0.098	25.936	21.417	0.396	0.018	0.117
T-5	17	26.434	24.244	12.069	0.498	26.434	16.869	7.715	0.457	0.955
	18	26.748	24.902	2.954	0.119	26.740	15.068	0.141	0.009	0.128
	19	28.742	26.737	10.104	0.378	28.736	18.220	6.803	0.373	0.751
	20	29.050	25.184	3.089	0.123	29.044	15.788	-0.198	-0.013	0.110
SC EMS-2	21	29.634	29.512	11.626	0.394	29.632	22.722	7.100	0.312	0.706
	22	29.862	31.393	3.937	0.125	29.856	21.101	-0.771	-0.037	0.089
	23	30.096	29.653	12.069	0.407	30.096	23.173	8.352	0.360	0.767
	24	30.324	30.170	4.053	0.134	30.314	22.407	-0.495	-0.022	0.112
	25	32.022	27.959	12.262	0.439	32.024	22.362	8.542	0.382	0.821
	26	32.250	30.782	4.419	0.144	32.242	21.372	-0.559	-0.026	0.117
	27	32.484	26.925	10.528	0.391	32.484	23.803	6.209	0.261	0.652
	28	32.712	26.313	3.205	0.122	32.706	22.857	-0.644	-0.028	0.094
TRIP-MLC	29	33.218	41.600	17.542	0.422	33.218	26.775	11.131	0.416	0.837
	30	33.454	41.694	5.036	0.121	33.448	27.360	-1.153	-0.042	0.079
	31	33.684	40.753	13.476	0.331	33.684	28.531	8.691	0.305	0.635
	32	33.920	40.753	3.012	0.074	33.914	26.775	-0.050	-0.002	0.072
	33	35.342	37.931	13.457	0.355	35.338	24.793	7.057	0.285	0.639
	34	35.574	40.236	3.070	0.076	35.570	22.902	-0.877	-0.038	0.038
	35	35.808	43.481	16.058	0.369	35.808	26.955	9.646	0.358	0.727
	36	36.044	43.011	3.590	0.083	36.036	26.955	-0.325	-0.012	0.071
LCC EMS-1	37	36.552	30.640	12.686	0.414	36.554	19.165	7.991	0.417	0.831
	38	36.782	29.559	3.398	0.115	36.774	19.706	-0.304	-0.015	0.100
	39	37.020	27.489	11.009	0.401	37.018	22.362	7.609	0.340	0.741
	40	37.248	27.442	2.974	0.108	37.240	20.246	-0.177	-0.009	0.100
	41	38.974	28.430	12.570	0.442	38.972	21.552	7.757	0.360	0.802
	42	39.206	29.559	3.263	0.110	39.198	21.101	-0.368	-0.017	0.093
	43	39.442	26.454	12.108	0.458	39.440	22.362	8.245	0.369	0.826
	44	39.674	25.278	3.436	0.136	39.666	22.407	-0.368	-0.016	0.120
MLC EMS-	45	40.146	44.610	9.256	0.207	40.144	29.476	4.215	0.143	0.350
	46	40.384	43.951	2.704	0.062	40.376	28.936	-0.750	-0.026	0.036
	47	40.618	41.741	6.423	0.154	40.618	26.459	-1.068	-0.040	0.114
	48	40.856	40.000	2.396	0.060	40.850	25.964	-1.110	-0.043	0.017
	49	42.580	39.812	8.947	0.225	42.578	24.613	5.042	0.205	0.430
	50	42.820	39.436	1.991	0.050	42.814	24.163	-0.156	-0.006	0.044
	51	43.056	42.305	6.924	0.164	43.054	27.720	2.899	0.105	0.268
	52	43.294	43.622	1.818	0.042	43.286	26.504	-0.559	-0.021	0.021
SC EMS-1	53	43.764	30.452	12.300	0.404	43.764	20.786	7.482	0.360	0.764
	54	43.998	30.640	2.858	0.093	43.988	20.156	-0.325	-0.016	0.077
	55	44.236	31.158	11.799	0.379	44.238	21.417	8.542	0.399	0.778
	56	44.468	31.534	3.629	0.115	44.462	20.696	-0.325	-0.016	0.099
	57	46.210	28.900	11.626	0.402	46.210	21.282	7.970	0.374	0.777
	58	46.442	31.158	3.070	0.099	46.434	19.976	-0.347	-0.017	0.081
	59	46.678	26.078	11.086	0.425	46.678	22.092	7.842	0.355	0.780
	60	46.912	26.643	3.398	0.128	46.904	20.876	-0.241	-0.012	0.116



WA07_RN002		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	16.180	36.859	15.755	0.427	16.176	27.438	12.867	0.469	0.896
	2	16.542	41.699	3.863	0.093	16.534	27.920	-1.124	-0.040	0.052
	3	17.548	35.966	14.297	0.398	17.542	28.313	12.386	0.437	0.835
	4	17.914	44.330	3.978	0.090	17.904	25.951	-1.393	-0.054	0.036
LOCO 4901	5	18.560	36.248	14.757	0.407	18.554	28.313	11.655	0.412	0.819
	6	18.922	41.370	3.480	0.084	18.916	27.264	-1.393	-0.051	0.033
	7	19.922	34.275	15.084	0.440	19.918	29.100	12.059	0.414	0.854
	8	20.284	43.297	3.115	0.072	20.280	26.870	-1.143	-0.043	0.029
MC EMS-1	9	21.042	29.341	12.533	0.427	21.040	21.403	8.017	0.375	0.802
	10	21.278	30.233	3.019	0.100	21.276	18.079	-0.450	-0.025	0.075
	11	23.580	31.220	12.763	0.409	23.582	20.441	7.459	0.365	0.774
	12	23.814	31.079	2.904	0.093	23.806	20.353	-0.489	-0.024	0.069
FC EMS-1	13	24.392	29.716	12.130	0.408	24.390	23.677	8.499	0.359	0.767
	14	24.626	29.529	2.501	0.085	24.618	22.803	0.281	0.012	0.097
	15	25.778	33.523	13.185	0.393	25.774	21.665	8.364	0.386	0.779
	16	26.008	33.429	2.041	0.061	26.002	21.928	0.319	0.015	0.076
T-5	17	26.498	24.031	11.152	0.464	26.500	18.735	7.325	0.391	0.855
	18	26.816	26.380	2.022	0.077	26.806	15.105	-0.085	-0.006	0.071
	19	28.802	23.843	9.752	0.409	28.804	17.204	6.131	0.356	0.765
	20	29.118	25.346	2.175	0.086	29.108	16.417	-0.527	-0.032	0.054
SC EMS-2	21	29.698	29.669	10.806	0.364	29.698	23.765	7.190	0.303	0.667
	22	29.924	30.844	2.348	0.076	29.918	20.485	-0.701	-0.034	0.042
	23	30.160	27.931	11.056	0.396	30.158	24.115	8.056	0.334	0.730
	24	30.388	29.669	2.501	0.084	30.380	22.365	-0.162	-0.007	0.077
	25	32.086	27.931	10.998	0.394	32.086	22.584	8.037	0.356	0.750
	26	32.316	28.824	2.943	0.102	32.312	19.872	-0.662	-0.033	0.069
	27	32.552	24.783	9.138	0.369	32.550	24.158	5.573	0.231	0.599
	28	32.784	25.346	1.715	0.068	32.774	22.890	-0.585	-0.026	0.042
TRIP-MLC	29	33.286	41.370	16.465	0.398	33.284	28.182	10.481	0.372	0.770
	30	33.520	41.229	3.019	0.073	33.512	28.401	-1.259	-0.044	0.029
	31	33.750	40.853	13.645	0.334	33.750	28.838	8.306	0.288	0.622
	32	33.986	40.947	1.811	0.044	33.980	27.307	0.012	0.000	0.045
	33	35.406	38.316	12.398	0.324	35.404	26.258	6.844	0.261	0.584
	34	35.642	42.921	1.849	0.043	35.640	23.634	-0.778	-0.033	0.010
	35	35.874	42.733	15.448	0.362	35.872	28.619	9.403	0.329	0.690
	36	36.112	43.250	2.367	0.055	36.104	28.094	-0.316	-0.011	0.044
LCC EMS-1	37	36.620	31.173	11.996	0.385	36.616	20.178	7.729	0.383	0.768
	38	36.848	28.918	1.869	0.065	36.840	19.741	-0.258	-0.013	0.052
	39	37.082	26.474	10.423	0.394	37.084	22.584	7.402	0.328	0.721
	40	37.314	27.602	1.523	0.055	37.310	21.141	-0.046	-0.002	0.053
	41	39.044	27.320	11.037	0.404	39.036	21.840	7.517	0.344	0.748
	42	39.276	27.978	1.696	0.061	39.266	20.353	-0.277	-0.014	0.047
	43	39.508	25.064	10.921	0.436	39.508	23.284	7.498	0.322	0.758
	44	39.744	25.581	2.290	0.090	39.734	22.759	-0.470	-0.021	0.069
MLC EMS-1	45	40.214	45.552	8.793	0.193	40.206	29.931	4.149	0.139	0.332
	46	40.452	44.330	2.060	0.046	40.442	29.013	-0.931	-0.032	0.014
	47	40.684	41.934	5.743	0.137	40.686	26.739	-0.816	-0.031	0.106
	48	40.924	40.430	1.485	0.037	40.920	26.957	-0.835	-0.031	0.006
	49	42.648	39.631	8.006	0.202	42.644	24.596	3.918	0.159	0.361
	50	42.890	40.430	1.619	0.040	42.880	23.590	-0.912	-0.039	0.001
	51	43.122	42.639	6.932	0.163	43.118	26.258	2.706	0.103	0.266
	52	43.364	43.579	1.216	0.028	43.354	25.864	-0.874	-0.034	-0.006
SC EMS-1	53	43.836	30.515	11.382	0.373	43.830	22.321	7.652	0.343	0.716
	54	44.060	30.045	1.408	0.047	44.058	20.485	-0.258	-0.013	0.034
	55	44.304	29.669	11.075	0.373	44.302	21.840	7.883	0.361	0.734
	56	44.538	31.361	2.425	0.077	44.528	20.791	-0.470	-0.023	0.055
	57	46.276	29.482	10.845	0.368	46.276	21.797	7.844	0.360	0.728
	58	46.510	30.092	1.907	0.063	46.502	19.916	-0.450	-0.023	0.041
	59	46.748	25.346	10.116	0.399	46.748	22.321	7.382	0.331	0.730
	60	46.982	26.192	1.984	0.076	46.972	20.791	-0.277	-0.013	0.062

WA07_RN002		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	16.248	40.547	17.850	0.440	16.242	26.875	14.526	0.541	0.981
	2	16.612	44.644	4.644	0.104	16.602	25.186	-1.441	-0.057	0.047
	3	17.616	39.129	16.717	0.427	17.612	25.630	13.365	0.521	0.949
	4	17.978	45.275	4.405	0.097	17.972	24.030	-1.763	-0.073	0.024
LOCO 4901	5	18.628	38.498	16.478	0.428	18.622	25.630	12.398	0.484	0.912
	6	18.990	43.699	4.584	0.105	18.984	25.053	-2.064	-0.082	0.022
	7	19.990	37.185	17.164	0.462	19.988	28.030	13.989	0.499	0.961
	8	20.352	45.590	4.286	0.094	20.346	25.275	-1.849	-0.073	0.021
MC EMS-1	9	21.112	31.984	14.243	0.445	21.110	19.053	8.294	0.435	0.881
	10	21.346	31.564	3.511	0.111	21.340	18.875	-0.281	-0.015	0.096
	11	23.648	31.302	13.945	0.445	23.646	19.098	7.907	0.414	0.860
	12	23.880	32.142	3.779	0.118	23.872	20.209	-0.753	-0.037	0.080
FC EMS-1	13	24.460	30.566	13.319	0.436	24.458	22.031	8.896	0.404	0.840
	14	24.690	31.459	3.213	0.102	24.684	22.031	0.450	0.020	0.123
	15	25.844	34.243	14.183	0.414	25.842	20.875	9.476	0.454	0.868
	16	26.074	36.344	3.004	0.083	26.066	21.409	0.536	0.025	0.108
T-5	17	26.568	26.942	12.484	0.463	26.564	17.187	7.778	0.453	0.916
	18	26.882	28.990	2.766	0.095	26.872	13.809	0.128	0.009	0.105
	19	28.868	25.838	9.801	0.379	28.870	16.787	6.446	0.384	0.763
	20	29.182	27.467	3.153	0.115	29.174	15.542	-0.603	-0.039	0.076
SC EMS-2	21	29.766	31.039	11.888	0.383	29.760	22.475	7.757	0.345	0.728
	22	29.992	33.823	3.690	0.109	29.984	20.164	-1.033	-0.051	0.058
	23	30.228	29.831	12.663	0.424	30.224	23.631	9.218	0.390	0.815
	24	30.454	33.245	3.899	0.117	30.446	22.075	-0.474	-0.021	0.096
	25	32.156	29.305	12.066	0.412	32.150	21.009	8.788	0.418	0.830
	26	32.382	31.827	4.286	0.135	32.372	18.964	-0.560	-0.030	0.105
	27	32.616	26.994	9.413	0.349	32.612	24.119	6.424	0.266	0.615
	28	32.844	28.990	2.825	0.097	32.838	21.808	-0.968	-0.044	0.053
TRIP-MLC	29	33.352	43.173	17.969	0.416	33.348	28.252	12.312	0.436	0.852
	30	33.586	44.329	4.107	0.093	33.580	27.941	-1.549	-0.055	0.037
	31	33.816	43.489	16.329	0.375	33.814	28.563	10.615	0.372	0.747
	32	34.052	44.276	2.855	0.064	34.044	26.875	0.020	0.001	0.065
	33	35.474	40.967	13.348	0.326	35.468	24.786	7.735	0.312	0.638
	34	35.708	46.640	2.766	0.059	35.702	22.831	-1.205	-0.053	0.007
	35	35.942	45.695	17.909	0.392	35.936	28.386	11.603	0.409	0.801
	36	36.176	46.430	3.183	0.069	36.170	27.363	-0.302	-0.011	0.058
LCC EMS-1	37	36.688	32.405	13.617	0.420	36.682	19.542	8.767	0.449	0.869
	38	36.916	31.091	3.034	0.098	36.908	19.142	-0.001	-0.000	0.098
	39	37.152	29.305	12.037	0.411	37.148	22.697	8.767	0.386	0.797
	40	37.382	30.776	2.736	0.089	37.376	20.564	-0.001	-0.000	0.089
	41	39.108	29.936	12.812	0.428	39.106	20.253	8.251	0.407	0.835
	42	39.338	32.142	2.796	0.087	39.330	19.498	-0.087	-0.004	0.083
	43	39.576	26.679	11.917	0.447	39.572	23.586	8.616	0.365	0.812
	44	39.808	28.570	3.064	0.107	39.800	22.164	-0.603	-0.027	0.080
MLC EMS-1	45	40.280	47.691	11.083	0.232	40.276	28.119	5.178	0.184	0.417
	46	40.518	47.481	3.243	0.068	40.512	26.964	-1.291	-0.048	0.020
	47	40.752	43.489	7.595	0.175	40.748	25.630	0.128	0.005	0.180
	48	40.990	43.278	2.289	0.053	40.982	25.275	-1.011	-0.040	0.013
	49	42.718	42.438	9.533	0.225	42.714	23.364	5.156	0.221	0.445
	50	42.956	43.173	2.468	0.057	42.948	21.720	-0.904	-0.042	0.016
	51	43.190	44.697	9.175	0.205	43.188	24.519	4.189	0.171	0.376
	52	43.430	46.115	2.468	0.054	43.420	23.586	-1.011	-0.043	0.011
SC EMS-1	53	43.900	32.037	13.080	0.408	43.896	20.786	8.294	0.399	0.807
	54	44.132	32.983	2.796	0.085	44.124	19.142	-0.152	-0.008	0.077
	55	44.374	31.932	12.782	0.400	44.368	21.186	8.939	0.422	0.822
	56	44.604	34.821	3.362	0.097	44.596	20.431	-0.388	-0.019	0.078
	57	46.346	30.776	12.424	0.404	46.342	20.564	8.552	0.416	0.820
	58	46.576	32.772	3.064	0.093	46.570	18.698	-0.259	-0.014	0.080
	59	46.816	27.204	11.470	0.422	46.810	22.875	8.767	0.383	0.805
	60	47.046	31.144	3.094	0.099	47.038	20.697	-0.259	-0.013	0.087

WA10_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	3.658	28.432	11.936	0.420	3.656	34.117	12.200	0.358	0.777
	2	3.864	33.704	0.983	0.029	3.860	34.787	0.166	0.005	0.034
	3	4.428	29.925	12.891	0.431	4.424	31.436	12.050	0.383	0.814
	4	4.634	35.616	1.605	0.045	4.630	34.474	-0.198	-0.006	0.039
LOCO 4901	5	4.998	27.498	11.895	0.433	4.992	33.848	11.666	0.345	0.777
	6	5.202	32.724	1.024	0.031	5.196	34.742	-0.091	-0.003	0.029
	7	5.762	25.259	11.231	0.445	5.760	36.440	11.153	0.306	0.751
	8	5.966	34.963	1.170	0.033	5.962	35.412	0.016	0.000	0.034
MC EMS-1	9	6.392	24.279	9.177	0.378	6.390	28.577	7.733	0.271	0.649
	10	6.524	26.192	0.755	0.029	6.520	26.790	0.722	0.027	0.056
	11	7.822	21.667	8.036	0.371	7.818	29.247	6.878	0.235	0.606
	12	7.952	23.579	0.713	0.030	7.948	27.594	0.358	0.013	0.043
FC EMS-1	13	8.280	21.620	8.285	0.383	8.278	28.979	8.010	0.276	0.660
	14	8.410	24.233	0.527	0.022	8.406	28.041	1.192	0.043	0.064
	15	9.064	29.878	10.588	0.354	9.062	25.405	8.417	0.331	0.686
	16	9.194	28.711	0.070	0.002	9.190	28.041	2.261	0.081	0.083
T-5	17	9.476	19.754	8.368	0.424	9.474	19.999	6.835	0.342	0.765
	18	9.654	21.293	0.464	0.022	9.648	18.838	0.465	0.025	0.046
	19	10.786	19.520	7.559	0.387	10.784	19.910	6.300	0.316	0.704
	20	10.964	20.594	0.236	0.011	10.960	19.955	0.551	0.028	0.039
SC EMS-2	21	11.298	25.586	8.742	0.342	11.296	25.092	7.091	0.283	0.624
	22	11.428	23.859	-1.133	-0.047	11.424	27.192	1.512	0.056	0.008
	23	11.564	21.433	7.123	0.332	11.560	30.900	6.300	0.204	0.536
	24	11.692	22.460	0.112	0.005	11.688	32.151	1.021	0.032	0.037
	25	12.664	20.407	6.916	0.339	12.660	27.415	5.873	0.214	0.553
	26	12.792	22.506	0.319	0.014	12.788	27.773	0.807	0.029	0.043
	27	12.926	22.226	7.040	0.317	12.924	28.041	5.253	0.187	0.504
	28	13.056	20.920	-0.096	-0.005	13.052	28.577	0.807	0.028	0.024
TRIP-MLC	29	13.344	36.456	12.808	0.351	13.342	32.910	10.768	0.327	0.679
	30	13.478	33.750	1.253	0.037	13.474	34.340	0.465	0.014	0.051
	31	13.610	31.977	8.368	0.262	13.606	37.780	7.647	0.202	0.464
	32	13.744	31.278	-0.283	-0.009	13.738	37.020	0.764	0.021	0.012
	33	14.552	29.085	9.322	0.321	14.548	33.312	8.459	0.254	0.574
	34	14.686	29.318	-0.760	-0.026	14.680	34.831	0.166	0.005	-0.021
	35	14.818	32.257	9.447	0.293	14.814	37.288	7.839	0.210	0.503
	36	14.952	32.724	-1.299	-0.040	14.948	36.618	0.914	0.025	-0.015
LCC EMS-1	37	15.242	23.626	7.580	0.321	15.238	24.020	6.685	0.278	0.599
	38	15.372	21.340	-0.801	-0.038	15.368	26.254	1.235	0.047	0.009
	39	15.506	23.020	6.833	0.297	15.504	28.175	5.082	0.180	0.477
	40	15.636	21.853	-0.863	-0.040	15.632	29.828	0.999	0.034	-0.006
	41	16.616	20.080	6.999	0.349	16.612	26.477	7.113	0.269	0.617
	42	16.746	21.060	-0.677	-0.032	16.740	28.979	0.935	0.032	0.000
	43	16.880	21.993	7.082	0.322	16.878	27.862	5.638	0.202	0.524
	44	17.010	20.733	-0.718	-0.035	17.008	29.515	0.850	0.029	-0.006
MLC EMS-	45	17.278	36.363	5.754	0.158	17.274	35.725	4.761	0.133	0.292
	46	17.412	32.677	-1.299	-0.040	17.408	37.601	0.914	0.024	-0.015
	47	17.546	31.138	2.518	0.081	17.544	36.127	-0.903	-0.025	0.056
	48	17.680	29.925	-1.403	-0.047	17.676	38.271	0.529	0.014	-0.033
	49	18.660	29.971	4.904	0.164	18.656	33.536	4.056	0.121	0.285
	50	18.794	28.758	-1.755	-0.061	18.790	34.474	0.807	0.023	-0.038
	51	18.926	30.251	3.306	0.109	18.926	35.769	-1.074	-0.030	0.079
	52	19.064	32.817	-1.548	-0.047	19.058	35.859	0.209	0.006	-0.041
SC EMS-1	53	19.330	25.959	7.746	0.298	19.328	23.975	6.578	0.274	0.573
	54	19.462	26.659	-0.324	-0.012	19.458	25.003	0.743	0.030	0.018
	55	19.600	24.513	7.123	0.291	19.596	26.254	5.852	0.223	0.513
	56	19.732	23.673	-0.718	-0.030	19.726	30.900	0.679	0.022	-0.008
	57	20.726	22.506	7.165	0.318	20.722	25.584	6.194	0.242	0.560
	58	20.858	21.573	-0.822	-0.038	20.852	27.728	-0.850	-0.031	-0.007
	59	20.994	22.040	6.273	0.285	20.992	27.013	4.954	0.183	0.468
	60	21.126	22.133	0.132	0.006	21.120	25.405	0.401	0.016	0.022

WA10_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	3.696	28.958	12.605	0.435	3.694	35.726	10.807	0.302	0.738
	2	3.902	37.989	-0.170	-0.004	3.898	35.334	-0.409	-0.012	-0.016
	3	4.466	29.792	13.356	0.448	4.466	32.198	12.139	0.377	0.825
	4	4.672	36.276	0.050	0.001	4.668	33.766	-0.946	-0.028	-0.027
LOCO 4901	5	5.034	29.190	12.429	0.426	5.034	36.249	11.279	0.311	0.737
	6	5.240	36.507	-0.965	-0.026	5.234	35.030	-1.311	-0.037	-0.064
	7	5.800	26.828	12.098	0.451	5.798	37.948	10.162	0.268	0.719
	8	6.004	37.202	-1.207	-0.032	6.000	35.944	-1.075	-0.030	-0.062
MC EMS-1	9	6.428	21.733	8.192	0.377	6.430	27.582	7.519	0.273	0.650
	10	6.562	25.206	-0.214	-0.009	6.558	27.015	0.279	0.010	0.002
	11	7.858	21.316	7.398	0.347	7.858	30.543	6.166	0.202	0.549
	12	7.990	24.002	0.072	0.003	7.986	25.578	0.021	0.001	0.004
FC EMS-1	13	8.318	21.779	7.376	0.339	8.316	30.326	7.047	0.232	0.571
	14	8.448	24.141	-0.126	-0.005	8.444	26.188	0.623	0.024	0.019
	15	9.102	28.310	9.362	0.331	9.100	25.927	7.219	0.278	0.609
	16	9.232	27.337	-1.229	-0.045	9.228	25.970	1.375	0.053	0.008
T-5	17	9.512	20.807	8.876	0.427	9.512	21.702	6.638	0.306	0.733
	18	9.690	22.242	-0.744	-0.033	9.686	20.439	0.343	0.017	-0.017
	19	10.824	19.463	7.729	0.397	10.822	22.094	5.586	0.253	0.650
	20	11.002	21.594	-0.281	-0.013	10.996	20.874	0.107	0.005	-0.008
SC EMS-2	21	11.334	25.392	7.442	0.293	11.334	27.146	6.638	0.245	0.538
	22	11.466	24.882	-1.053	-0.042	11.462	27.756	0.623	0.022	-0.020
	23	11.598	19.278	6.206	0.322	11.598	32.373	5.715	0.177	0.498
	24	11.730	22.428	-0.898	-0.040	11.724	31.240	0.472	0.015	-0.025
	25	12.698	21.316	6.229	0.292	12.698	29.759	5.586	0.188	0.480
	26	12.830	22.428	-0.214	-0.010	12.824	27.930	0.279	0.010	0.000
	27	12.964	20.575	5.721	0.278	12.962	28.279	4.554	0.161	0.439
	28	13.092	20.760	-1.053	-0.051	13.090	28.061	0.601	0.021	-0.029
TRIP-MLC	29	13.382	35.442	11.767	0.332	13.378	34.289	9.947	0.290	0.622
	30	13.516	35.118	0.801	0.023	13.510	34.115	0.043	0.001	0.024
	31	13.646	31.135	7.332	0.235	13.644	40.387	6.595	0.163	0.399
	32	13.780	31.366	-1.318	-0.042	13.776	36.685	0.580	0.016	-0.026
	33	14.588	29.884	7.994	0.267	14.586	36.946	6.810	0.184	0.452
	34	14.722	31.459	-0.965	-0.031	14.718	35.160	0.107	0.003	-0.028
	35	14.854	31.598	8.788	0.278	14.852	40.517	7.562	0.187	0.465
	36	14.990	33.589	-1.252	-0.037	14.984	37.120	0.257	0.007	-0.030
LCC EMS-1	37	15.278	22.613	5.942	0.263	15.276	26.841	6.037	0.225	0.488
	38	15.408	21.362	-1.053	-0.049	15.404	26.275	0.709	0.027	-0.022
	39	15.542	20.807	5.743	0.276	15.542	27.364	4.490	0.164	0.440
	40	15.674	20.992	-1.803	-0.086	15.670	29.585	0.816	0.028	-0.058
	41	16.652	19.510	5.699	0.292	16.650	28.714	5.758	0.201	0.493
	42	16.782	21.223	-1.009	-0.048	16.778	28.191	0.386	0.014	-0.034
	43	16.920	19.834	5.677	0.286	16.914	28.453	4.447	0.156	0.443
	44	17.048	20.575	-1.141	-0.055	17.044	28.366	0.558	0.020	-0.036
MLC EMS-	45	17.314	36.507	4.022	0.110	17.314	39.777	3.716	0.093	0.204
	46	17.450	34.516	-1.538	-0.045	17.446	38.209	0.236	0.006	-0.038
	47	17.582	29.653	0.823	0.028	17.580	38.993	-2.536	-0.065	-0.037
	48	17.718	29.838	-2.620	-0.088	17.712	37.164	0.365	0.010	-0.078
	49	18.694	29.699	2.897	0.098	18.694	36.728	3.695	0.101	0.198
	50	18.832	30.764	-1.869	-0.061	18.828	34.855	0.171	0.005	-0.056
	51	18.964	29.838	1.683	0.056	18.962	37.512	1.740	0.046	0.103
	52	19.102	34.655	-2.597	-0.075	19.098	35.683	-0.043	-0.001	-0.076
SC EMS-1	53	19.368	24.651	5.920	0.240	19.366	25.752	5.758	0.224	0.464
	54	19.502	26.272	-1.097	-0.042	19.494	26.188	-0.022	-0.001	-0.043
	55	19.638	22.150	5.743	0.259	19.636	28.932	5.306	0.183	0.443
	56	19.768	23.354	-1.274	-0.055	19.764	30.718	0.429	0.014	-0.041
	57	20.762	22.196	5.611	0.253	20.760	28.758	5.779	0.201	0.454
	58	20.896	21.825	-0.987	-0.045	20.890	27.887	0.472	0.017	-0.028
	59	21.032	20.019	5.500	0.275	21.030	28.017	4.920	0.176	0.450
	60	21.166	21.640	-1.274	-0.059	21.160	26.841	0.128	0.005	-0.054

WA10_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	3.734	30.133	14.500	0.481	3.734	31.943	12.970	0.406	0.887
	2	3.940	38.412	3.304	0.086	3.936	30.457	-0.395	-0.013	0.073
	3	4.504	30.039	14.828	0.494	4.504	30.232	14.477	0.479	0.972
	4	4.708	36.906	3.092	0.084	4.706	30.457	-0.586	-0.019	0.065
LOCO 4901	5	5.072	29.193	13.807	0.473	5.072	31.943	12.376	0.387	0.860
	6	5.276	38.506	2.977	0.077	5.274	31.402	-1.244	-0.040	0.038
	7	5.838	28.487	14.038	0.493	5.836	34.059	12.673	0.372	0.865
	8	6.040	36.107	2.707	0.075	6.038	31.672	-0.607	-0.019	0.056
MC EMS-1	9	6.466	21.573	10.030	0.465	6.468	23.163	8.176	0.353	0.818
	10	6.600	24.489	2.476	0.101	6.596	22.442	0.072	0.003	0.104
	11	7.894	22.420	9.702	0.433	7.896	27.350	7.836	0.287	0.719
	12	8.026	27.123	2.418	0.089	8.024	24.919	-0.183	-0.007	0.082
FC EMS-1	13	8.354	23.925	9.702	0.406	8.354	28.521	8.855	0.310	0.716
	14	8.486	25.101	2.167	0.086	8.482	24.648	1.026	0.042	0.128
	15	9.138	29.099	11.571	0.398	9.138	23.613	9.046	0.383	0.781
	16	9.268	29.005	2.013	0.069	9.266	24.423	1.472	0.060	0.130
T-5	17	9.550	21.855	10.646	0.487	9.550	18.705	7.794	0.417	0.904
	18	9.728	21.949	1.300	0.059	9.724	19.065	0.390	0.020	0.080
	19	10.860	19.692	8.835	0.449	10.860	20.506	6.309	0.308	0.756
	20	11.038	20.915	1.801	0.086	11.036	19.110	0.135	0.007	0.093
SC EMS-2	21	11.372	25.430	8.893	0.350	11.372	25.954	7.794	0.300	0.650
	22	11.502	25.242	1.185	0.047	11.498	25.594	0.178	0.007	0.054
	23	11.636	20.821	8.064	0.387	11.636	31.582	7.752	0.245	0.633
	24	11.766	23.549	1.782	0.076	11.762	27.440	0.199	0.007	0.083
	25	12.736	22.843	8.719	0.382	12.736	29.331	7.200	0.245	0.627
	26	12.866	22.655	2.341	0.103	12.862	25.279	-0.162	-0.006	0.097
	27	13.000	20.773	6.966	0.335	12.998	26.404	5.736	0.217	0.553
	28	13.130	19.833	1.031	0.052	13.126	25.549	0.220	0.009	0.061
TRIP-MLC	29	13.418	35.542	13.460	0.379	13.418	33.563	12.207	0.364	0.742
	30	13.552	35.448	3.170	0.089	13.548	32.798	-0.777	-0.024	0.066
	31	13.684	31.639	9.644	0.305	13.682	38.336	9.491	0.248	0.552
	32	13.816	32.767	0.896	0.027	13.814	33.924	0.114	0.003	0.031
	33	14.624	28.864	9.336	0.323	14.624	34.419	8.706	0.253	0.576
	34	14.758	32.391	1.088	0.034	14.756	33.293	-1.074	-0.032	0.001
	35	14.890	33.003	10.878	0.330	14.892	37.301	9.491	0.254	0.584
	36	15.026	36.577	1.031	0.028	15.022	32.663	-0.268	-0.008	0.020
LCC EMS-1	37	15.316	23.878	8.372	0.351	15.314	24.603	7.115	0.289	0.640
	38	15.446	22.655	0.934	0.041	15.442	24.874	0.114	0.005	0.046
	39	15.580	22.467	7.602	0.338	15.580	25.999	6.139	0.236	0.574
	40	15.710	21.949	0.375	0.017	15.708	26.855	0.199	0.007	0.025
	41	16.690	21.949	7.968	0.363	16.688	27.620	7.455	0.270	0.633
	42	16.820	21.902	0.973	0.044	16.816	24.874	-0.225	-0.009	0.035
	43	16.954	22.232	8.006	0.360	16.954	26.630	6.415	0.241	0.601
	44	17.086	20.679	1.031	0.050	17.082	24.829	-0.034	-0.001	0.048
MLC EMS-	45	17.352	35.778	6.349	0.177	17.350	35.950	5.078	0.141	0.319
	46	17.488	34.461	0.684	0.020	17.484	35.725	-0.077	-0.002	0.018
	47	17.620	30.604	2.553	0.083	17.620	36.355	-2.113	-0.058	0.025
	48	17.756	30.510	0.163	0.005	17.752	34.734	0.114	0.003	0.009
	49	18.732	28.440	5.116	0.180	18.732	33.924	5.418	0.160	0.340
	50	18.870	31.686	0.433	0.014	18.866	31.537	1.175	0.037	0.051
	51	19.002	31.450	3.478	0.111	19.000	32.933	-0.862	-0.026	0.084
	52	19.138	34.273	0.106	0.003	19.134	30.952	0.369	0.012	0.015
SC EMS-1	53	19.406	25.665	8.700	0.339	19.404	23.568	7.667	0.325	0.664
	54	19.536	25.618	0.953	0.037	19.534	23.073	-0.247	-0.011	0.027
	55	19.672	22.279	7.447	0.334	19.674	28.791	7.582	0.263	0.598
	56	19.806	23.643	0.934	0.040	19.802	26.269	-0.013	-0.001	0.039
	57	20.800	24.113	8.180	0.339	20.800	28.160	7.497	0.266	0.605
	58	20.932	23.078	1.127	0.049	20.930	25.234	-0.162	-0.006	0.042
	59	21.068	20.726	6.792	0.328	21.068	24.648	6.033	0.245	0.572
	60	21.200	22.514	1.011	0.045	21.198	23.658	-0.056	-0.002	0.043

WA10_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	3.774	30.589	13.221	0.432	3.772	31.899	13.620	0.427	0.859
	2	3.980	38.812	1.483	0.038	3.976	31.199	-0.160	-0.005	0.033
	3	4.542	30.636	13.988	0.457	4.542	30.893	14.505	0.470	0.926
	4	4.748	38.530	1.943	0.050	4.744	30.587	-0.525	-0.017	0.033
LOCO 49	5	5.112	29.696	12.607	0.425	5.110	31.417	12.273	0.391	0.815
	6	5.316	37.966	1.252	0.033	5.312	33.386	-0.525	-0.016	0.017
	7	5.878	29.226	13.029	0.446	5.876	32.992	11.907	0.361	0.807
	8	6.082	37.825	1.713	0.045	6.076	32.423	-0.525	-0.016	0.029
MC EMS	9	6.506	24.198	10.190	0.421	6.506	28.618	7.346	0.257	0.678
	10	6.640	26.407	1.598	0.061	6.634	23.064	0.033	0.001	0.062
	11	7.934	22.882	9.577	0.419	7.932	28.181	6.788	0.241	0.659
	12	8.066	30.025	1.905	0.063	8.060	25.076	-0.198	-0.008	0.056
FC EMS-	13	8.394	25.232	9.615	0.381	8.392	28.968	8.077	0.279	0.660
	14	8.524	26.641	1.483	0.056	8.520	25.776	0.956	0.037	0.093
	15	9.176	30.260	11.111	0.367	9.176	26.782	8.905	0.332	0.700
	16	9.306	29.931	1.041	0.035	9.304	25.513	1.245	0.049	0.084
T-5	17	9.584	24.762	9.711	0.392	9.588	20.484	5.633	0.275	0.667
	18	9.766	22.694	0.735	0.032	9.762	19.347	0.283	0.015	0.047
	19	10.900	20.204	7.735	0.383	10.898	20.265	5.383	0.266	0.648
	20	11.076	21.614	0.773	0.036	11.072	19.478	0.129	0.007	0.042
SC EMS-	21	11.412	24.527	7.927	0.323	11.410	28.662	7.057	0.246	0.569
	22	11.540	26.688	0.658	0.025	11.536	26.825	0.264	0.010	0.034
	23	11.676	22.177	7.620	-0.344	11.674	33.779	6.807	0.202	0.545
	24	11.804	25.796	1.195	0.046	11.800	28.269	0.283	0.010	0.056
	25	12.774	22.882	8.138	0.356	12.774	30.018	6.268	0.209	0.564
	26	12.906	26.453	1.521	0.058	12.900	24.857	-0.217	-0.009	0.049
	27	13.040	22.224	6.661	0.300	13.036	29.100	5.094	0.175	0.475
	28	13.170	22.177	0.562	0.025	13.164	28.400	0.264	0.009	0.035
TRIP-ML	29	13.456	34.959	12.434	0.356	13.454	35.091	11.176	0.318	0.674
	30	13.590	35.664	1.598	0.045	13.586	34.698	-0.487	-0.014	0.031
	31	13.722	33.032	9.519	0.288	13.720	39.202	8.597	0.219	0.507
	32	13.856	35.147	0.600	0.017	13.852	35.485	1.110	0.031	0.048
	33	14.662	27.863	7.735	0.278	14.662	35.266	7.230	0.205	0.483
	34	14.798	33.878	0.620	0.018	14.794	34.173	-0.506	-0.015	0.003
	35	14.928	34.207	10.305	0.301	14.928	37.278	9.097	0.244	0.545
	36	15.066	37.026	0.830	0.022	15.060	33.079	0.129	0.004	0.026
LCC EMS	37	15.354	23.446	7.812	0.333	15.352	25.601	6.345	0.248	0.581
	38	15.484	24.950	0.600	0.024	15.480	25.513	0.206	-0.008	0.032
	39	15.618	24.010	7.659	0.319	15.618	29.449	5.806	0.197	0.516
	40	15.750	24.198	0.447	0.018	15.746	26.694	0.264	-0.010	0.028
	41	16.728	22.553	8.061	0.357	16.726	29.624	6.615	0.223	0.581
	42	16.862	24.198	0.754	0.031	16.854	27.000	-0.160	-0.006	0.025
	43	16.994	23.399	8.119	0.347	16.992	28.225	6.210	0.220	0.567
	44	17.124	23.117	0.830	0.036	17.120	26.475	0.033	0.001	0.037
MLC EM	45	17.392	35.945	5.932	0.165	17.388	38.109	4.979	0.131	0.296
	46	17.526	36.133	0.524	0.014	17.520	36.447	-0.160	-0.004	0.010
	47	17.658	31.810	3.228	0.101	17.656	38.240	-1.334	-0.035	0.067
	48	17.794	34.160	0.025	0.001	17.790	36.360	-0.025	-0.001	0.000
	49	18.772	29.837	4.513	0.151	18.770	35.135	4.228	0.120	0.272
	50	18.908	33.690	0.082	0.002	18.902	31.767	-0.140	-0.004	-0.002
	51	19.042	34.160	3.669	0.107	19.040	35.966	-1.584	-0.044	0.063
	52	19.178	37.449	-0.109	-0.003	19.172	33.298	-0.140	-0.004	-0.007
SC EMS-	53	19.444	27.487	8.061	0.293	19.442	25.951	6.691	0.258	0.551
	54	19.576	26.923	0.830	0.031	19.574	23.370	-0.198	-0.008	0.022
	55	19.714	24.010	7.160	0.298	19.712	31.767	6.826	0.215	0.513
	56	19.846	25.514	0.696	0.027	19.840	27.350	0.033	0.001	0.028
	57	20.840	24.057	7.659	0.318	20.838	29.231	7.057	0.241	0.560
	58	20.972	25.185	0.313	0.012	20.966	28.137	0.148	0.005	0.018
	59	21.110	22.694	5.990	0.264	21.106	26.738	4.902	0.183	0.447
	60	21.242	23.916	0.735	0.031	21.236	25.338	-0.064	-0.003	0.028

WA10_RN001		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	3.812	33.610	15.425	0.459	3.810	30.744	15.637	0.509	0.968
	2	4.018	42.435	2.815	0.066	4.012	30.656	-0.738	-0.024	0.042
	3	4.582	33.242	16.737	0.503	4.580	28.700	15.981	0.557	1.060
	4	4.786	41.752	3.024	0.072	4.782	29.545	-0.953	-0.032	0.040
LOCO 49	5	5.150	32.717	14.322	0.438	5.146	29.011	13.725	0.473	0.911
	6	5.354	39.861	2.428	0.061	5.348	32.167	-1.232	-0.038	0.023
	7	5.914	31.298	14.829	0.474	5.912	31.456	13.725	0.436	0.910
	8	6.118	40.491	2.785	0.069	6.114	31.633	-1.254	-0.040	0.029
MC EMS	9	6.544	27.989	12.205	0.436	6.542	27.634	9.556	0.346	0.782
	10	6.676	29.460	2.845	0.097	6.672	22.390	-0.416	-0.019	0.078
	11	7.972	24.732	10.447	0.422	7.970	25.278	7.858	0.311	0.733
	12	8.102	29.670	3.084	0.104	8.098	21.057	-0.738	-0.035	0.069
FC EMS-	13	8.430	26.203	11.073	0.423	8.428	25.901	9.147	0.353	0.776
	14	8.560	27.359	2.577	0.094	8.556	24.478	-0.029	-0.001	0.093
	15	9.214	30.195	12.086	0.400	9.212	24.967	10.888	0.436	0.836
	16	9.344	32.086	2.040	0.064	9.340	24.345	0.702	0.029	0.092
T-5	17	9.624	24.995	10.327	0.413	9.622	19.323	6.719	0.348	0.761
	18	9.804	25.310	1.861	0.074	9.798	18.479	0.143	0.008	0.081
	19	10.936	22.316	9.046	0.405	10.934	18.746	6.225	0.332	0.737
	20	11.114	22.841	1.832	0.080	11.108	18.124	-0.050	-0.003	0.077
SC EMS-	21	11.448	26.623	9.344	0.351	11.444	26.478	7.837	0.296	0.647
	22	11.578	27.779	1.742	0.063	11.572	24.212	-0.072	-0.003	0.060
	23	11.712	24.732	9.403	0.380	11.710	30.878	7.923	0.257	0.637
	24	11.842	28.830	2.338	0.081	11.838	25.367	-0.136	-0.005	0.076
	25	12.812	25.415	9.224	0.363	12.810	27.411	7.278	0.266	0.628
	26	12.942	27.831	2.577	0.093	12.936	23.723	-0.631	-0.027	0.066
	27	13.076	22.631	8.390	0.371	13.074	27.189	6.418	0.236	0.607
	28	13.204	23.577	1.504	0.064	13.200	26.389	-0.029	-0.001	0.063
TRIP-ML	29	13.494	36.079	13.398	0.371	13.490	33.455	11.683	0.349	0.721
	30	13.626	37.234	2.189	0.059	13.622	33.900	-0.845	-0.025	0.034
	31	13.758	33.505	11.132	0.332	13.756	37.366	9.405	0.252	0.584
	32	13.892	38.022	1.772	0.047	13.888	33.100	0.208	0.006	0.053
	33	14.700	30.458	9.523	0.313	14.698	34.122	8.352	0.245	0.557
	34	14.834	36.394	1.325	0.036	14.830	31.900	-1.017	-0.032	0.005
	35	14.966	36.919	12.205	0.331	14.964	35.188	10.329	0.294	0.624
	36	15.102	39.388	1.623	0.041	15.098	31.544	-0.072	-0.002	0.039
LCC EMS	37	15.392	24.785	8.479	0.342	15.388	24.878	7.149	0.287	0.629
	38	15.520	26.203	1.414	0.054	15.516	23.367	0.229	0.010	0.064
	39	15.656	25.625	8.867	0.346	15.654	27.811	6.934	0.249	0.595
	40	15.786	25.835	1.235	0.048	15.782	25.456	0.014	0.001	0.048
	41	16.766	23.944	8.956	0.374	16.764	26.478	7.944	0.300	0.674
	42	16.896	27.831	1.802	0.065	16.892	24.078	-0.394	-0.016	0.048
	43	17.030	23.892	9.373	0.392	17.028	26.656	7.751	0.291	0.683
	44	17.162	25.310	1.623	0.064	17.156	25.589	-0.201	-0.008	0.056
MLC EM	45	17.428	39.020	7.734	0.198	17.426	36.255	6.633	0.183	0.381
	46	17.564	38.443	1.414	0.037	17.560	34.877	-0.416	-0.012	0.025
	47	17.696	34.818	3.739	0.107	17.694	35.633	-1.469	-0.041	0.066
	48	17.830	36.131	0.818	0.023	17.826	33.589	-0.179	-0.005	0.017
	49	18.810	34.398	6.154	0.179	18.808	33.944	5.967	0.176	0.355
	50	18.946	36.709	0.758	0.021	18.940	29.011	-0.244	-0.008	0.012
	51	19.078	37.549	4.902	0.131	19.076	33.855	-1.168	-0.034	0.096
	52	19.214	40.071	0.192	0.005	19.210	29.678	-0.072	-0.002	0.002
SC EMS-	53	19.482	28.514	9.523	0.334	19.480	24.612	8.137	0.331	0.665
	54	19.614	28.042	1.504	0.054	19.610	23.279	-0.244	-0.010	0.043
	55	19.752	25.783	9.105	0.353	19.748	29.234	7.923	0.271	0.624
	56	19.884	28.830	1.623	0.056	19.880	26.034	-0.287	-0.011	0.045
	57	20.876	24.680	8.539	0.346	20.874	26.567	7.536	0.284	0.630
	58	21.010	27.674	1.265	0.046	21.006	25.945	-0.050	-0.002	0.044
	59	21.146	24.417	7.853	0.322	21.144	25.234	6.117	0.242	0.564
	60	21.278	25.993	1.742	0.067	21.274	23.945	-0.330	-0.014	0.053

WA10_RN002		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	1.238	28.623	11.893	0.416	1.236	35.417	11.808	0.333	0.749
	2	1.442	33.242	0.691	0.021	1.438	34.613	0.373	0.011	0.032
	3	2.002	29.416	12.744	0.433	2.000	32.067	12.407	0.387	0.820
	4	2.208	33.242	1.355	0.041	2.202	34.167	0.095	0.003	0.044
LOCO 4901	5	2.568	27.270	10.316	0.378	2.564	34.971	9.671	0.277	0.655
	6	2.772	31.142	0.421	0.014	2.766	33.899	0.052	0.002	0.015
	7	3.332	26.990	11.416	0.423	3.330	36.713	10.227	0.279	0.702
	8	3.536	31.842	0.608	0.019	3.530	35.641	0.287	0.008	0.027
MC EMS-1	9	3.962	23.584	8.636	0.366	3.958	29.922	8.388	0.280	0.647
	10	4.092	25.777	0.400	0.016	4.088	28.493	0.950	0.033	0.049
	11	5.396	20.645	7.557	0.366	5.392	29.431	6.764	0.230	0.596
	12	5.526	22.931	0.193	0.008	5.522	27.644	0.522	0.019	0.027
FC EMS-1	13	5.858	21.251	8.242	0.388	5.854	28.538	7.790	0.273	0.661
	14	5.988	25.824	0.815	0.032	5.984	27.599	0.950	0.034	0.066
	15	6.648	29.883	10.711	0.358	6.646	24.874	8.046	0.323	0.682
	16	6.780	29.509	0.338	0.011	6.776	27.733	1.570	0.057	0.068
T-5	17	7.064	20.178	8.698	0.431	7.060	19.334	7.127	0.369	0.800
	18	7.244	20.085	0.442	0.022	7.238	19.200	0.800	0.042	0.064
	19	8.390	19.712	8.366	0.424	8.388	19.424	6.935	0.357	0.781
	20	8.570	20.971	0.255	0.012	8.566	20.094	0.565	0.028	0.040
SC EMS-2	21	8.908	24.844	8.366	0.337	8.906	25.991	7.448	0.287	0.623
	22	9.040	24.144	0.172	0.007	9.036	26.840	1.420	0.053	0.060
	23	9.176	21.578	7.516	0.348	9.172	31.307	6.807	0.217	0.566
	24	9.308	22.884	0.442	0.019	9.302	31.709	0.929	0.029	0.049
	25	10.290	21.391	8.159	0.381	10.286	26.393	7.191	0.272	0.654
	26	10.420	21.998	0.504	0.023	10.414	28.359	0.950	0.034	0.056
	27	10.554	21.391	7.495	0.350	10.552	27.063	5.888	0.218	0.568
	28	10.686	21.905	0.151	0.007	10.680	27.912	0.971	0.035	0.042
TRIP-MLC	29	10.976	36.461	13.221	0.363	10.974	32.871	10.825	0.329	0.692
	30	11.112	34.688	1.396	0.040	11.106	33.496	0.202	0.006	0.046
	31	11.244	32.309	8.470	0.262	11.242	37.919	7.213	0.190	0.452
	32	11.380	30.909	-0.824	-0.027	11.374	37.562	0.864	0.023	-0.004
	33	12.192	29.323	9.964	0.340	12.188	33.854	9.756	0.288	0.628
	34	12.326	29.696	-0.056	-0.002	12.320	35.105	0.266	0.008	0.006
	35	12.458	35.108	10.918	0.311	12.456	38.589	9.158	0.237	0.548
	36	12.594	32.589	-0.969	-0.030	12.588	35.775	1.035	0.029	-0.001
LCC EMS-1	37	12.882	24.191	8.470	0.350	12.880	24.070	7.042	0.293	0.643
	38	13.012	20.645	-0.326	-0.016	13.008	26.348	1.463	0.056	0.040
	39	13.148	22.698	7.267	0.320	13.144	27.823	5.738	0.206	0.526
	40	13.278	21.578	-0.803	-0.037	13.272	29.699	1.100	0.037	-0.000
	41	14.250	19.665	7.806	0.397	14.248	26.482	7.897	0.298	0.695
	42	14.380	21.858	-0.243	-0.011	14.376	29.431	1.121	0.038	0.027
	43	14.514	21.625	7.578	0.350	14.510	27.778	6.016	0.217	0.567
	44	14.642	21.811	0.068	0.003	14.638	28.940	0.843	0.029	0.032
MLC EMS-	45	14.906	35.854	6.064	0.169	14.904	35.864	4.712	0.131	0.301
	46	15.040	32.449	-1.321	-0.041	15.034	37.473	0.929	0.025	-0.016
	47	15.170	30.349	2.143	0.071	15.168	36.445	-0.952	-0.026	0.044
	48	15.304	30.209	-1.570	-0.052	15.298	37.830	0.693	0.018	-0.034
	49	16.266	30.676	5.151	0.168	16.262	34.211	4.691	0.137	0.305
	50	16.398	28.156	-1.799	-0.064	16.394	34.524	0.800	0.023	-0.041
	51	16.528	29.276	2.869	0.098	16.526	36.534	-1.316	-0.036	0.062
	52	16.662	32.635	-1.861	-0.057	16.656	35.954	0.309	0.009	-0.048
SC EMS-1	53	16.922	26.617	9.134	0.343	16.920	24.338	7.512	0.309	0.652
	54	17.052	25.030	-0.326	-0.013	17.046	24.740	1.078	0.044	0.031
	55	17.186	24.937	7.703	0.309	17.182	26.929	7.127	0.265	0.574
	56	17.312	23.491	-0.741	-0.032	17.308	30.593	1.057	0.035	0.003
	57	18.278	22.044	7.682	0.348	18.276	26.348	7.042	0.267	0.616
	58	18.406	22.698	-0.990	-0.044	18.402	28.984	1.014	0.035	-0.009
	59	18.538	20.831	6.520	0.313	18.534	26.885	5.546	0.206	0.519
	60	18.666	20.318	-0.201	-0.010	18.662	27.242	0.779	0.029	0.019



WAI0_RN002		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	1.276	29.250	12.135	0.415	1.276	37.140	10.321	0.278	0.693
	2	1.480	36.336	-0.023	-0.001	1.476	34.614	-0.315	-0.009	-0.010
	3	2.040	30.732	13.569	0.442	2.038	33.699	11.502	0.341	0.783
	4	2.244	35.410	0.176	0.005	2.238	32.828	-1.088	-0.033	-0.028
LOCO 4901	5	2.604	28.370	9.928	0.350	2.602	38.055	8.752	0.230	0.580
	6	2.810	34.808	-1.126	-0.032	2.806	34.527	-1.174	-0.034	-0.066
	7	3.368	27.536	11.627	0.422	3.368	38.447	9.569	0.249	0.671
	8	3.572	34.344	-1.060	-0.031	3.568	36.051	-0.529	-0.015	-0.046
MC EMS-1	9	3.998	21.237	7.413	0.349	3.998	28.516	7.313	0.256	0.605
	10	4.130	24.248	-1.016	-0.042	4.126	27.558	0.480	0.017	-0.024
	11	5.432	20.079	6.574	0.327	5.430	29.475	5.551	0.188	0.516
	12	5.564	23.229	-1.060	-0.046	5.560	26.600	0.180	0.007	-0.039
FC EMS-1	13	5.894	22.719	7.722	0.340	5.892	30.520	6.453	0.211	0.551
	14	6.026	24.711	0.132	0.005	6.022	25.467	0.416	0.016	0.022
	15	6.686	28.740	9.774	0.340	6.684	25.685	7.270	0.283	0.623
	16	6.818	28.370	-0.839	-0.030	6.814	25.467	0.760	0.030	0.000
T-5	17	7.102	20.728	9.046	0.436	7.100	22.288	6.604	0.296	0.733
	18	7.282	21.608	-0.067	-0.003	7.278	20.589	0.416	0.020	0.017
	19	8.432	20.357	6.574	0.323	8.426	21.809	5.723	0.262	0.585
	20	8.608	20.959	-0.376	-0.018	8.602	21.548	0.094	0.004	-0.014
SC EMS-2	21	8.944	24.248	7.038	0.290	8.944	29.083	6.969	0.240	0.530
	22	9.078	25.220	-0.398	-0.016	9.072	27.950	0.480	0.017	0.001
	23	9.212	19.431	6.619	0.341	9.212	32.001	6.281	0.196	0.537
	24	9.344	23.368	-0.222	-0.009	9.340	29.910	0.394	0.013	0.004
	25	10.324	21.561	7.545	0.350	10.324	29.823	6.754	0.226	0.576
	26	10.456	22.812	0.043	0.002	10.454	28.255	0.180	0.006	0.008
	27	10.590	20.172	6.508	0.323	10.590	29.649	5.293	0.179	0.501
	28	10.722	20.218	-0.906	-0.045	10.718	28.386	0.459	0.016	-0.029
TRIP-MLC	29	11.012	34.993	11.958	0.342	11.012	35.050	9.740	0.278	0.620
	30	11.150	34.715	0.926	0.027	11.144	33.917	-0.143	-0.004	0.022
	31	11.280	31.566	7.192	0.228	11.280	40.973	6.238	0.152	0.380
	32	11.416	31.473	-1.523	-0.048	11.410	36.618	0.717	0.020	-0.029
	33	12.228	29.991	9.487	0.316	12.226	37.576	8.301	0.221	0.537
	34	12.364	31.334	-0.883	-0.028	12.358	36.182	0.008	0.000	-0.028
	35	12.496	31.751	9.928	0.313	12.494	40.146	7.764	0.193	0.506
	36	12.630	34.854	-1.148	-0.033	12.626	36.008	0.180	0.005	-0.028
LCC EMS-1	37	12.918	23.368	7.192	0.308	12.918	27.950	6.947	0.249	0.556
	38	13.050	21.284	-0.928	-0.044	13.046	26.687	0.717	0.027	-0.017
	39	13.184	20.913	6.266	0.300	13.184	28.429	5.078	0.179	0.478
	40	13.314	21.654	-1.568	-0.072	13.310	29.518	0.867	0.029	-0.043
	41	14.286	19.755	7.060	0.357	14.284	28.211	6.947	0.246	0.604
	42	14.416	21.469	-0.795	-0.037	14.414	27.558	0.180	0.007	-0.031
	43	14.548	20.450	6.817	0.333	14.550	29.562	5.744	0.194	0.528
	44	14.682	20.265	-0.883	-0.044	14.676	29.823	0.351	0.012	-0.032
MLC EMS-	45	14.942	35.919	4.147	0.115	14.940	38.970	3.854	0.099	0.214
	46	15.076	34.252	-1.435	-0.042	15.072	38.142	0.351	0.009	-0.033
	47	15.206	29.991	0.926	0.031	15.206	39.274	1.791	0.046	0.076
	48	15.340	29.806	-2.340	-0.079	15.336	38.752	0.223	0.006	-0.073
	49	16.300	29.713	2.956	0.099	16.300	37.227	3.789	0.102	0.201
	50	16.436	31.102	-1.987	-0.064	16.430	34.919	0.394	0.011	-0.053
	51	16.564	29.250	1.654	0.057	16.562	37.837	1.791	0.047	0.104
	52	16.698	34.113	-2.781	-0.082	16.694	37.097	0.180	0.005	-0.077
SC EMS-1	53	16.958	24.896	7.722	0.310	16.958	25.990	7.098	0.273	0.583
	54	17.088	25.961	-1.082	-0.042	17.084	26.164	0.309	0.012	-0.030
	55	17.220	21.886	6.332	0.289	17.220	29.170	6.109	0.209	0.499
	56	17.350	23.738	-1.391	-0.059	17.346	30.563	0.609	0.020	-0.039
	57	18.312	21.191	6.023	0.284	18.312	28.603	-6.174	-0.216	-0.500
	58	18.442	21.654	-1.259	-0.058	18.438	28.952	0.588	0.020	-0.038
	59	18.574	20.079	5.515	0.275	18.574	29.170	4.992	0.171	0.446
	60	18.702	20.774	-1.369	-0.066	18.700	27.645	0.738	0.027	-0.039

WA10_RN002		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	1.314	30.103	14.205	0.472	1.312	33.629	12.681	0.377	0.849
	2	1.518	36.406	2.643	0.073	1.514	30.252	0.058	0.002	0.075
	3	2.078	30.244	15.053	0.498	2.078	30.387	13.954	0.459	0.957
	4	2.282	35.324	2.817	0.080	2.278	29.127	-0.133	-0.005	0.075
LOCO 4901	5	2.642	30.056	12.606	0.419	2.644	33.359	10.686	0.320	0.740
	6	2.846	34.054	2.046	0.060	2.844	30.883	-0.770	-0.025	0.035
	7	3.406	28.269	13.377	0.473	3.406	34.530	11.196	0.324	0.797
	8	3.610	34.242	2.412	0.070	3.608	31.873	-0.239	-0.008	0.063
MC EMS-1	9	4.036	21.684	9.619	0.444	4.036	24.669	7.313	0.296	0.740
	10	4.168	23.660	1.834	0.078	4.166	22.688	0.291	0.013	0.090
	11	5.470	23.142	9.215	0.398	5.470	28.586	7.059	0.247	0.645
	12	5.602	26.717	1.275	0.048	5.598	25.705	0.058	0.002	0.050
FC EMS-1	13	5.932	24.506	10.005	0.408	5.932	27.866	8.480	0.304	0.713
	14	6.064	26.199	2.509	0.096	6.060	24.039	0.397	0.017	0.112
	15	6.724	29.539	12.105	0.410	6.722	23.679	8.225	0.347	0.757
	16	6.856	29.962	2.335	0.078	6.852	24.444	1.012	0.041	0.119
T-5	17	7.138	20.649	10.563	0.512	7.138	20.437	7.631	0.373	0.885
	18	7.318	21.590	1.006	0.047	7.316	19.761	0.567	0.029	0.075
	19	8.466	20.132	8.347	0.415	8.466	20.437	5.446	0.266	0.681
	20	8.644	20.320	1.333	0.066	8.642	19.807	0.121	0.006	0.072
SC EMS-2	21	8.982	24.318	9.041	0.372	8.982	27.011	8.480	0.314	0.686
	22	9.114	25.682	2.220	0.086	9.112	25.480	0.249	0.010	0.096
	23	9.250	21.966	8.598	0.391	9.250	30.928	8.013	0.259	0.651
	24	9.382	24.647	2.181	0.088	9.378	26.245	0.100	0.004	0.092
	25	10.364	22.813	9.504	0.417	10.362	28.226	8.162	0.289	0.706
	26	10.494	23.895	2.740	0.115	10.492	24.579	-0.112	-0.005	0.110
	27	10.630	21.073	7.885	0.374	10.630	27.191	7.165	0.264	0.638
	28	10.760	20.367	1.372	0.067	10.758	25.029	0.270	0.011	0.078
TRIP-MLC	29	11.050	36.265	13.512	0.373	11.050	34.124	11.641	0.341	0.714
	30	11.186	35.089	3.260	0.093	11.182	32.368	-0.855	-0.026	0.067
	31	11.318	31.750	9.272	0.292	11.318	38.132	9.265	0.243	0.535
	32	11.454	32.925	0.832	0.025	11.450	34.124	1.394	0.041	0.066
	33	12.266	29.633	10.563	0.356	12.264	34.935	9.583	0.274	0.631
	34	12.400	32.126	1.198	0.037	12.396	33.539	-0.855	-0.025	0.012
	35	12.532	34.995	12.356	0.353	12.532	38.762	10.262	0.265	0.618
	36	12.666	35.653	1.256	0.035	12.662	33.269	-0.154	-0.005	0.031
LCC EMS-1	37	12.956	23.660	8.964	0.379	12.956	24.759	7.716	0.312	0.691
	38	13.086	23.095	1.256	0.054	13.084	24.624	0.121	0.005	0.059
	39	13.220	22.249	8.001	0.360	13.220	25.480	7.059	0.277	0.637
	40	13.350	22.060	0.620	0.028	13.346	25.660	0.270	0.011	0.039
	41	14.324	21.590	9.118	0.422	14.322	28.271	8.629	0.305	0.728
	42	14.454	21.825	2.085	0.096	14.450	24.489	-0.133	-0.005	0.090
	43	14.586	21.872	8.983	0.411	14.586	27.011	7.886	0.292	0.703
	44	14.716	20.932	1.256	0.060	14.714	24.939	0.100	0.004	0.064
MLC EMS-	45	14.980	35.559	6.536	0.184	14.980	35.925	5.786	0.161	0.345
	46	15.114	34.101	0.697	0.020	15.110	35.520	-0.070	-0.002	0.018
	47	15.244	31.138	3.029	0.097	15.244	36.691	-1.406	-0.038	0.059
	48	15.378	30.950	0.254	0.008	15.374	36.376	0.334	0.009	0.017
	49	16.338	29.163	5.245	0.180	16.338	34.124	5.722	0.168	0.348
	50	16.472	31.467	0.427	0.014	16.468	31.963	1.182	0.037	0.051
	51	16.602	30.056	3.896	0.130	16.600	34.034	2.837	0.083	0.213
	52	16.734	34.948	-0.016	-0.000	16.732	32.368	0.524	0.016	0.016
SC EMS-1	53	16.996	25.541	9.773	0.383	16.994	23.409	8.544	0.365	0.748
	54	17.124	25.541	1.140	0.045	17.120	22.913	0.015	0.001	0.045
	55	17.258	22.766	8.193	0.360	17.258	28.271	8.225	0.291	0.651
	56	17.386	23.660	1.025	0.043	17.382	27.056	0.079	0.003	0.046
	57	18.350	24.036	8.656	0.360	18.350	28.046	8.501	0.303	0.663
	58	18.478	21.402	1.006	0.047	18.476	25.119	0.015	0.001	0.048
	59	18.610	20.837	7.904	0.379	18.610	25.525	6.868	0.269	0.648
	60	18.740	21.073	1.063	0.050	18.734	24.219	0.164	0.007	0.057

WAI0_RN002		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	1.354	32.061	13.282	0.414	1.350	33.617	12.474	0.371	0.785
	2	1.558	37.418	0.911	0.024	1.554	32.961	-0.228	-0.007	0.017
	3	2.116	30.370	13.512	0.445	2.116	31.387	13.917	0.443	0.888
	4	2.320	37.512	0.757	0.020	2.318	31.912	0.042	0.001	0.021
LOCO 49	5	2.684	31.497	11.690	0.371	2.680	33.136	10.646	0.321	0.692
	6	2.886	35.633	1.007	0.028	2.882	33.486	-0.536	-0.016	0.012
	7	3.446	29.806	12.438	0.417	3.444	34.448	11.415	0.331	0.749
	8	3.650	36.243	0.872	0.024	3.646	32.305	-0.112	-0.003	0.021
MC EMS	9	4.076	24.402	9.580	0.393	4.074	27.801	6.546	0.235	0.628
	10	4.208	26.282	1.390	0.053	4.204	23.296	0.119	0.005	0.058
	11	5.510	22.428	8.506	0.379	5.506	29.113	6.412	0.220	0.599
	12	5.642	28.490	1.697	0.060	5.636	25.089	-0.189	-0.008	0.052
FC EMS-	13	5.972	26.329	10.021	0.381	5.970	28.500	7.643	0.268	0.649
	14	6.104	27.691	1.927	0.070	6.098	24.783	0.273	0.011	0.081
	15	6.762	30.511	11.191	0.367	6.760	25.920	8.182	0.316	0.682
	16	6.894	29.900	1.313	0.044	6.890	25.351	0.927	0.037	0.080
T-5	17	7.176	21.817	10.117	0.464	7.176	20.584	7.374	0.358	0.822
	18	7.358	22.851	0.585	0.026	7.354	18.660	0.388	0.021	0.046
	19	8.504	20.596	7.298	0.354	8.504	20.103	5.469	0.272	0.626
	20	8.684	21.348	0.719	0.034	8.680	19.972	-0.035	-0.002	0.032
SC EMS-	21	9.020	23.791	8.026	0.337	9.020	29.156	7.566	0.260	0.597
	22	9.152	27.362	1.064	0.039	9.148	25.964	0.273	0.011	0.049
	23	9.290	23.697	8.659	0.365	9.288	32.087	7.047	0.220	0.585
	24	9.422	26.422	1.371	0.052	9.418	27.145	0.292	0.011	0.063
	25	10.402	23.274	8.755	0.376	10.400	30.337	7.124	0.235	0.611
	26	10.534	25.013	1.563	0.062	10.528	25.439	-0.035	-0.001	0.061
	27	10.666	21.864	7.048	0.322	10.666	29.637	5.507	0.186	0.508
	28	10.800	22.334	0.604	0.027	10.794	27.538	0.292	0.011	0.038
TRIP-ML	29	11.090	35.539	12.495	0.352	11.088	34.361	10.780	0.314	0.665
	30	11.224	36.102	1.927	0.053	11.220	34.186	-0.709	-0.021	0.033
	31	11.358	32.625	8.890	0.272	11.356	39.259	8.259	0.210	0.483
	32	11.494	34.693	0.565	0.016	11.488	35.061	1.081	0.031	0.047
	33	12.302	28.396	8.813	0.310	12.300	35.410	7.836	0.221	0.532
	34	12.438	33.236	0.681	0.020	12.434	34.492	-0.478	-0.014	0.007
	35	12.570	33.189	11.114	0.335	12.570	37.685	9.780	0.260	0.594
	36	12.706	37.371	1.179	0.032	12.700	33.399	0.080	0.002	0.034
LCC EMS	37	12.996	23.039	8.544	0.371	12.994	25.614	7.028	0.274	0.645
	38	13.126	24.731	0.853	0.035	13.122	25.483	0.138	0.005	0.040
	39	13.260	24.026	8.295	0.345	13.258	29.463	6.604	0.224	0.569
	40	13.390	24.167	0.546	0.023	13.386	27.276	0.330	0.012	0.035
	41	14.364	22.663	8.928	0.394	14.360	29.900	7.643	0.256	0.650
	42	14.494	24.919	1.045	0.042	14.488	25.920	-0.074	-0.003	0.039
	43	14.626	23.039	8.755	0.380	14.624	28.807	7.085	0.246	0.626
	44	14.756	22.898	0.834	0.036	14.750	26.882	0.176	0.007	0.043
MLC EM	45	15.018	35.633	5.878	0.165	15.016	38.428	5.103	0.133	0.298
	46	15.152	36.008	0.642	0.018	15.146	37.466	-0.112	-0.003	0.015
	47	15.282	31.497	2.656	0.084	15.280	38.734	-1.363	-0.035	0.049
	48	15.416	33.377	0.009	0.000	15.412	36.591	0.042	0.001	0.001
	49	16.378	29.242	4.612	0.158	16.376	35.236	4.372	0.124	0.282
	50	16.510	33.706	0.163	0.005	16.504	32.830	-0.189	-0.006	-0.001
	51	16.640	33.377	3.615	0.108	16.640	36.110	-1.383	-0.038	0.070
	52	16.772	37.230	-0.259	-0.007	16.768	33.574	-0.132	-0.004	-0.011
SC EMS-	53	17.034	27.174	9.829	0.362	17.032	25.701	7.720	0.300	0.662
	54	17.162	26.329	0.757	0.029	17.158	25.002	0.061	0.002	0.031
	55	17.298	23.932	7.777	0.325	17.294	31.124	7.355	0.236	0.561
	56	17.426	25.342	0.911	0.036	17.420	27.057	-0.035	-0.001	0.035
	57	18.390	24.073	8.353	0.347	18.388	29.900	7.682	0.257	0.604
	58	18.516	23.509	0.239	0.010	18.514	28.063	0.253	0.009	0.019
	59	18.648	22.146	7.815	0.353	18.648	26.970	6.027	0.223	0.576
	60	18.778	23.227	0.681	0.029	18.772	25.526	0.253	0.010	0.039

WA10_RN002		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	1.390	34.917	14.884	0.426	1.388	30.277	14.567	0.481	0.907
	2	1.594	41.378	2.394	0.058	1.590	31.210	-0.949	-0.030	0.027
	3	2.156	34.234	15.868	0.464	2.152	29.877	15.383	0.515	0.978
	4	2.358	39.382	2.483	0.063	2.354	30.855	-1.013	-0.033	0.030
LOCO 49	5	2.720	34.391	13.513	0.393	2.718	30.366	12.568	0.414	0.807
	6	2.924	39.382	2.096	0.053	2.920	32.677	-1.400	-0.043	0.010
	7	3.484	33.183	14.437	0.435	3.482	32.632	12.912	0.396	0.831
	8	3.688	38.646	2.066	0.053	3.684	32.321	-1.035	-0.032	0.021
MC EMS	9	4.114	27.510	11.158	0.406	4.110	27.788	8.979	0.323	0.729
	10	4.246	29.821	2.751	0.092	4.240	22.944	-0.390	-0.017	0.075
	11	5.546	23.728	9.399	0.396	5.544	25.566	7.776	0.304	0.700
	12	5.678	29.086	2.901	0.100	5.674	20.722	-0.713	-0.034	0.065
FC EMS-	13	6.008	27.247	11.545	0.424	6.006	25.477	8.464	0.332	0.756
	14	6.140	28.245	2.662	-0.094	6.136	23.255	0.061	0.003	0.097
	15	6.800	30.714	12.320	0.401	6.798	24.322	9.860	0.405	0.807
	16	6.932	31.922	2.275	-0.071	6.928	24.811	-0.641	-0.026	0.097
T-5	17	7.216	24.148	11.158	0.462	7.214	18.811	7.991	0.425	0.887
	18	7.394	25.146	1.619	0.064	7.390	18.456	0.534	0.029	0.093
	19	8.542	22.257	8.415	0.378	8.540	19.745	5.928	0.300	0.678
	20	8.722	23.097	1.470	-0.064	8.716	18.900	-0.003	-0.000	0.063
SC EMS-	21	9.060	25.829	9.280	0.359	9.056	26.233	8.141	0.310	0.670
	22	9.190	28.823	1.917	0.067	9.186	23.744	0.147	0.006	0.073
	23	9.326	25.619	10.293	0.402	9.324	29.966	8.356	0.279	0.681
	24	9.458	29.086	2.424	0.083	9.452	25.522	-0.261	-0.010	0.073
	25	10.440	24.253	9.846	0.406	10.436	26.900	7.969	0.296	0.702
	26	10.570	27.720	2.483	0.090	10.564	23.300	-0.197	-0.008	0.081
	27	10.706	23.045	8.147	0.354	10.702	27.344	6.422	0.235	0.588
	28	10.836	24.201	1.619	0.067	10.832	26.944	0.211	-0.008	0.075
TRIP-ML	29	11.126	37.070	13.722	0.370	11.124	33.877	12.117	0.358	0.728
	30	11.262	38.699	2.901	0.075	11.258	32.988	-1.185	-0.036	0.039
	31	11.394	33.866	11.039	0.326	11.392	36.899	9.517	0.258	0.584
	32	11.528	38.226	1.499	0.039	11.524	32.899	0.190	0.006	0.045
	33	12.342	31.607	10.442	0.330	12.338	35.121	9.065	0.258	0.589
	34	12.474	36.125	1.619	0.045	12.472	31.255	-1.164	-0.037	0.008
	35	12.608	37.806	13.453	0.356	12.606	35.032	11.752	0.335	0.691
	36	12.744	38.699	1.976	0.051	12.738	31.743	-0.025	-0.001	0.050
LCC EMS	37	13.032	25.041	9.339	0.373	13.030	24.811	7.862	0.317	0.690
	38	13.162	26.669	1.619	0.061	13.158	23.122	0.147	0.006	0.067
	39	13.296	25.987	9.787	0.377	13.294	27.077	7.583	0.280	0.657
	40	13.426	25.514	1.261	0.049	13.420	24.144	0.190	0.008	0.057
	41	14.400	23.675	10.055	0.425	14.396	27.166	8.893	0.327	0.752
	42	14.528	26.985	1.887	0.070	14.524	24.278	-0.132	-0.005	0.064
	43	14.662	25.199	10.234	0.406	14.660	25.789	7.604	0.295	0.701
	44	14.792	24.831	1.738	0.070	14.788	26.411	0.083	0.003	0.073
MLC EM	45	15.056	38.436	7.879	0.205	15.052	35.921	6.573	0.183	0.388
	46	15.188	38.856	1.380	0.036	15.184	34.943	-0.304	-0.009	0.027
	47	15.320	33.288	4.242	0.127	15.316	36.899	-1.271	-0.034	0.093
	48	15.452	35.862	0.754	0.021	15.448	33.254	0.040	0.001	0.022
	49	16.414	33.393	5.911	0.177	16.412	33.432	5.992	0.179	0.356
	50	16.546	36.230	0.695	0.019	16.542	29.744	-0.132	-0.004	0.015
	51	16.676	37.228	4.629	0.124	16.674	32.988	-1.271	-0.039	0.086
	52	16.810	39.382	0.069	0.002	16.804	30.588	-0.068	-0.002	-0.000
SC EMS-	53	17.070	28.718	11.188	0.390	17.068	24.322	8.786	0.361	0.751
	54	17.198	29.033	1.589	0.055	17.196	23.255	0.040	0.002	0.056
	55	17.332	26.039	9.459	0.363	17.330	30.810	8.807	0.286	0.649
	56	17.460	27.720	1.738	0.063	17.456	25.789	-0.218	-0.008	0.054
	57	18.424	24.673	9.131	0.370	18.422	27.833	8.485	0.305	0.675
	58	18.554	27.090	1.112	0.041	18.548	27.344	0.061	0.002	0.043
	59	18.686	22.992	8.982	0.391	18.682	24.989	7.110	0.285	0.675
	60	18.814	25.356	1.619	0.064	18.808	24.633	0.104	0.004	0.068

WA12_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	2.454	22.555	9.283	0.412	2.452	40.672	11.772	0.289	0.701
	2	2.612	26.101	-1.339	-0.051	2.608	40.002	2.944	0.074	0.022
	3	3.048	24.654	10.714	0.435	3.046	35.847	12.028	0.336	0.770
	4	3.208	25.914	-0.737	-0.028	3.204	40.315	0.913	0.023	-0.006
LOCO 4901	5	3.488	21.528	7.229	0.336	3.486	40.270	9.762	0.242	0.578
	6	3.648	25.401	-1.588	-0.063	3.644	39.823	0.528	0.013	-0.049
	7	4.082	21.295	7.872	0.370	4.080	40.806	10.404	0.255	0.625
	8	4.240	25.821	-1.588	-0.061	4.236	41.074	0.657	0.016	-0.046
MC EMS-1	9	4.572	21.295	6.482	0.304	4.570	26.823	5.381	0.201	0.505
	10	4.674	21.389	-0.841	-0.039	4.672	29.057	0.571	0.020	-0.020
	11	5.686	22.322	5.963	0.267	5.684	29.369	4.996	0.170	0.437
	12	5.788	21.855	-1.069	-0.049	5.784	30.844	0.571	0.019	-0.030
FC EMS-1	13	6.044	18.496	4.573	0.247	6.042	35.088	6.236	0.178	0.425
	14	6.148	20.175	-1.256	-0.062	6.144	34.775	2.516	0.072	0.010
	15	6.660	22.555	4.988	0.221	6.656	33.882	6.556	0.194	0.415
	16	6.762	23.535	-2.086	-0.089	6.758	33.703	3.008	0.089	0.001
T-5	17	6.982	17.563	5.424	0.309	6.978	23.606	5.060	0.214	0.523
	18	7.122	16.770	-0.737	-0.044	7.118	22.847	0.999	0.044	-0.000
	19	8.014	17.609	5.383	0.306	8.010	23.562	4.782	0.203	0.509
	20	8.152	17.423	-0.903	-0.052	8.148	22.713	0.999	0.044	-0.008
SC EMS-2	21	8.416	21.109	6.295	0.298	8.414	29.459	7.219	0.245	0.543
	22	8.518	23.021	-2.003	-0.087	8.514	29.816	2.730	0.092	0.005
	23	8.624	20.689	6.482	0.313	8.622	31.112	5.829	0.187	0.501
	24	8.726	19.896	-1.069	-0.054	8.722	34.060	2.709	0.080	0.026
	25	9.490	18.123	6.129	0.338	9.486	31.335	7.069	0.226	0.564
	26	9.592	19.709	-0.156	-0.008	9.588	32.363	2.217	0.069	0.061
	27	9.698	20.502	6.295	0.307	9.694	28.923	5.124	0.177	0.484
	28	9.798	18.776	-1.360	-0.072	9.796	30.486	2.559	0.084	0.012
TRIP-MLC	29	10.026	29.646	8.992	0.303	10.024	39.868	9.805	0.246	0.549
	30	10.130	29.646	0.321	0.011	10.128	37.947	3.136	0.083	0.093
	31	10.234	29.180	6.067	0.208	10.232	39.689	5.338	0.134	0.342
	32	10.340	28.060	-2.729	-0.097	10.336	44.604	4.162	0.093	-0.004
	33	10.974	26.381	8.453	0.320	10.970	40.047	9.485	0.237	0.557
	34	11.078	25.541	-2.003	-0.078	11.074	38.483	2.987	0.078	-0.001
	35	11.182	28.947	8.474	0.293	11.180	38.974	7.753	0.199	0.492
	36	11.286	29.413	-2.833	-0.096	11.282	42.102	3.884	0.092	-0.004
LCC EMS-1	37	11.512	18.356	4.802	0.262	11.510	28.833	5.231	0.181	0.443
	38	11.614	17.749	-1.961	-0.111	11.610	33.167	3.478	0.105	-0.006
	39	11.720	19.756	5.403	0.274	11.718	29.771	4.803	0.161	0.435
	40	11.822	18.309	-1.588	-0.087	11.818	31.469	2.559	0.081	-0.005
	41	12.584	18.123	6.212	0.343	12.580	29.816	7.518	0.252	0.595
	42	12.686	18.636	-1.401	-0.075	12.682	32.139	2.816	0.088	0.012
	43	12.790	17.470	5.383	0.308	12.788	29.727	5.680	0.191	0.499
	44	12.892	17.283	-1.567	-0.091	12.888	32.318	2.837	0.088	-0.003
MLC EMS-	45	13.100	26.334	3.453	0.131	13.098	45.095	4.675	0.104	0.235
	46	13.204	26.847	-2.501	-0.093	13.200	46.391	3.478	0.075	-0.018
	47	13.308	26.754	0.445	0.017	13.306	41.923	-1.609	-0.038	-0.022
	48	13.412	26.287	-2.418	-0.092	13.408	41.878	1.170	0.028	-0.064
	49	14.174	24.654	3.225	0.131	14.170	40.672	4.953	0.122	0.253
	50	14.278	25.261	-2.335	-0.092	14.274	38.572	2.388	0.062	-0.031
	51	14.382	25.354	0.736	0.029	14.380	41.208	-1.716	-0.042	-0.013
	52	14.488	26.801	-2.750	-0.103	14.484	40.717	0.870	0.021	-0.081
SC EMS-1	53	14.694	21.109	6.399	0.303	14.692	27.582	7.753	0.281	0.584
	54	14.798	21.715	-1.671	-0.077	14.794	29.548	2.709	0.092	0.015
	55	14.904	20.409	5.341	0.262	14.902	30.844	6.043	0.196	0.458
	56	15.006	20.502	-1.588	-0.077	15.002	33.792	2.666	0.079	0.001
	57	15.776	20.875	6.129	0.294	15.774	28.342	6.214	0.219	0.513
	58	15.878	19.942	-1.982	-0.099	15.876	32.407	2.837	0.088	-0.012
	59	15.984	17.936	5.051	0.282	15.982	29.369	5.210	0.177	0.459
	60	16.088	17.423	-1.505	-0.086	16.084	31.514	2.880	0.091	0.005

WA12_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	2.482	22.315	9.048	0.405	2.482	42.434	9.552	0.225	0.631
	2	2.642	29.402	-2.205	-0.075	2.638	42.390	1.645	0.039	-0.036
	3	3.078	24.539	10.637	0.433	3.076	36.467	11.507	0.316	0.749
	4	3.236	29.216	-1.653	-0.057	3.232	42.347	0.507	0.012	-0.045
LOCO 4901	5	3.518	22.871	6.379	0.279	3.516	42.216	7.554	0.179	0.458
	6	3.676	29.726	-1.786	-0.060	3.674	43.218	-0.202	-0.005	-0.065
	7	4.112	22.640	7.548	0.333	4.110	43.958	8.735	0.199	0.532
	8	4.270	30.837	-2.028	-0.066	4.266	43.828	0.421	0.010	-0.056
MC EMS-1	9	4.600	19.722	5.099	0.259	4.600	29.498	5.190	0.176	0.434
	10	4.704	20.139	-1.278	-0.063	4.700	28.279	0.464	0.016	-0.047
	11	5.714	18.842	4.702	0.250	5.714	29.411	4.460	0.152	0.401
	12	5.818	19.814	-1.124	-0.057	5.814	26.667	0.421	0.016	-0.041
FC EMS-1	13	6.074	16.526	3.510	0.212	6.072	33.984	5.061	0.149	0.361
	14	6.176	20.046	-1.168	-0.058	6.174	32.155	1.065	0.033	-0.025
	15	6.688	20.926	3.819	0.183	6.686	33.418	5.899	0.177	0.359
	16	6.792	22.918	-2.116	-0.092	6.788	30.935	2.268	0.073	-0.019
T-5	17	7.010	16.897	5.253	0.311	7.010	25.927	5.384	0.208	0.519
	18	7.150	17.499	-1.256	-0.072	7.148	23.270	0.657	0.028	-0.044
	19	8.040	16.341	5.364	0.328	8.042	24.315	4.825	0.198	0.527
	20	8.182	17.036	-1.190	-0.070	8.178	24.489	0.571	0.023	-0.047
SC EMS-2	21	8.444	22.362	5.408	0.242	8.444	30.761	6.802	0.221	0.463
	22	8.546	23.890	-1.808	-0.076	8.542	28.758	1.409	0.049	-0.027
	23	8.652	21.065	6.070	0.288	8.652	32.939	4.782	0.145	0.433
	24	8.754	19.953	-1.521	-0.076	8.752	35.204	1.302	0.037	-0.039
	25	9.518	19.398	5.540	0.286	9.516	34.158	6.243	0.183	0.468
	26	9.620	20.000	-0.726	-0.036	9.618	31.371	0.850	0.027	-0.009
	27	9.724	20.556	5.650	0.275	9.724	28.845	4.890	0.170	0.444
	28	9.828	19.351	-1.609	-0.083	9.824	30.543	1.430	0.047	-0.036
TRIP-MLC	29	10.054	30.699	8.210	0.267	10.054	41.432	8.606	0.208	0.475
	30	10.160	29.819	-0.042	-0.001	10.156	38.383	1.516	0.040	0.038
	31	10.262	31.625	5.209	0.165	10.262	43.392	4.202	0.097	0.262
	32	10.368	27.225	-2.845	-0.104	10.364	45.004	2.548	0.057	-0.048
	33	11.002	27.271	7.438	0.273	11.000	42.652	7.103	0.167	0.439
	34	11.106	26.345	-1.852	-0.070	11.104	39.385	1.280	0.033	-0.038
	35	11.210	30.884	7.482	0.242	11.208	41.911	7.210	0.172	0.414
	36	11.314	28.939	-2.734	-0.094	11.312	41.476	2.161	0.052	-0.042
LCC EMS-1	37	11.542	18.657	3.753	0.201	11.540	30.979	4.933	0.159	0.360
	38	11.642	16.804	-1.830	-0.109	11.640	32.024	2.290	0.072	-0.037
	39	11.748	21.713	4.900	0.226	11.746	32.242	4.224	0.131	0.357
	40	11.850	18.332	-2.183	-0.119	11.846	34.115	1.817	0.053	-0.066
	41	12.612	18.935	5.386	0.284	12.610	33.287	6.394	0.192	0.477
	42	12.714	19.073	-1.543	-0.081	12.712	33.331	1.538	0.046	-0.035
	43	12.818	18.935	4.878	0.258	12.818	30.456	4.911	0.161	0.419
	44	12.920	16.989	-1.786	-0.105	12.918	33.070	1.882	0.057	-0.048
MLC EMS-	45	13.128	27.410	1.966	0.072	13.126	47.356	3.815	0.081	0.152
	46	13.234	25.743	-2.447	-0.095	13.230	46.354	1.796	0.039	-0.056
	47	13.334	26.808	-1.035	-0.039	13.334	45.439	-2.609	-0.057	-0.096
	48	13.442	26.623	-2.911	-0.109	13.438	43.871	1.022	0.023	-0.086
	49	14.202	26.623	1.855	0.070	14.200	43.610	4.224	0.097	0.167
	50	14.308	24.678	-2.580	-0.105	14.304	40.213	1.409	0.035	-0.069
	51	14.410	27.595	-0.064	-0.002	14.408	41.781	-2.995	-0.072	-0.074
	52	14.516	26.715	-3.308	-0.124	14.512	42.608	1.302	0.031	-0.093
SC EMS-1	53	14.724	22.038	5.364	0.243	14.722	30.630	7.382	0.241	0.484
	54	14.826	22.640	-1.565	-0.069	14.824	29.106	1.194	0.041	-0.028
	55	14.932	21.111	4.768	0.226	14.930	32.982	5.040	0.153	0.379
	56	15.036	20.370	-2.028	-0.100	15.032	35.378	1.388	0.039	-0.060
	57	15.804	22.177	5.275	0.238	15.802	30.108	5.362	0.178	0.416
	58	15.908	19.583	-2.006	-0.102	15.904	31.284	1.860	0.059	-0.043
	59	16.014	18.518	4.260	0.230	16.012	30.108	4.460	0.148	0.378
	60	16.116	16.804	-2.006	-0.119	16.114	31.414	2.054	0.065	-0.054

WA12_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	2.512	23.471	11.189	0.477	2.512	38.361	13.413	0.350	0.826
	2	2.672	30.527	0.070	0.002	2.668	36.560	1.914	0.052	0.055
	3	3.106	24.741	12.615	0.510	3.106	32.778	14.091	0.430	0.940
	4	3.266	29.163	0.359	0.012	3.262	38.316	0.005	0.000	0.012
LOCO 4901	5	3.546	22.296	8.665	0.389	3.546	37.866	10.570	0.279	0.668
	6	3.706	30.339	0.475	0.016	3.702	38.271	-0.123	-0.003	0.012
	7	4.140	23.613	9.898	0.419	4.140	38.722	10.145	0.262	0.681
	8	4.298	29.445	0.224	0.008	4.296	38.541	0.090	0.002	0.010
MC EMS-1	9	4.630	21.872	7.258	0.332	4.630	29.671	6.475	0.218	0.550
	10	4.732	21.026	0.359	0.017	4.730	27.375	1.214	0.044	0.061
	11	5.744	22.625	7.104	0.314	5.744	29.897	6.093	0.204	0.518
	12	5.846	21.120	0.725	0.034	5.844	25.394	0.302	0.012	0.046
FC EMS-1	13	6.102	18.862	5.986	0.317	6.102	31.698	6.963	0.220	0.537
	14	6.206	20.790	1.091	0.053	6.202	29.987	0.344	0.011	0.064
	15	6.718	21.731	6.969	0.321	6.716	30.887	7.642	0.247	0.568
	16	6.820	26.341	0.301	0.011	6.818	28.681	2.147	0.075	0.086
T-5	17	7.040	17.639	7.952	0.451	7.040	21.702	7.027	0.324	0.775
	18	7.180	17.921	0.340	0.019	7.178	20.441	1.150	0.056	0.075
	19	8.070	17.216	6.988	0.406	8.070	21.567	6.539	0.303	0.709
	20	8.210	18.345	0.340	0.019	8.208	20.982	0.981	0.047	0.065
SC EMS-2	21	8.474	22.060	7.585	0.344	8.472	28.051	8.703	0.310	0.654
	22	8.576	23.660	0.494	0.021	8.572	26.655	1.638	0.061	0.082
	23	8.680	19.803	7.624	0.385	8.680	31.067	7.218	0.232	0.617
	24	8.784	19.426	0.706	0.036	8.782	31.472	1.978	0.063	0.099
	25	9.546	18.580	7.431	0.400	9.546	30.212	7.833	0.259	0.659
	26	9.648	21.073	1.862	0.088	9.646	28.546	0.111	0.004	0.092
	27	9.754	19.803	7.200	0.364	9.754	28.726	6.942	0.242	0.605
	28	9.856	18.862	0.109	0.006	9.854	28.006	2.381	0.085	0.091
TRIP-MLC	29	10.082	29.962	10.804	0.361	10.082	36.830	11.121	0.302	0.663
	30	10.188	30.197	1.901	0.063	10.186	35.165	1.681	0.048	0.111
	31	10.292	30.574	7.605	0.249	10.292	41.693	7.515	0.180	0.429
	32	10.396	27.893	-0.296	-0.011	10.394	41.108	3.420	0.083	0.073
	33	11.030	25.776	8.607	0.334	11.030	37.821	9.233	0.244	0.578
	34	11.136	28.645	0.610	0.021	11.134	34.759	-0.547	-0.016	0.006
	35	11.238	30.339	10.052	0.331	11.238	39.217	9.870	0.252	0.583
	36	11.344	31.985	0.070	0.002	11.342	37.416	2.550	0.068	0.070
LCC EMS-1	37	11.570	19.662	6.680	0.340	11.570	29.807	7.409	0.249	0.588
	38	11.672	17.122	0.070	0.004	11.670	28.051	2.529	0.090	0.094
	39	11.776	20.273	6.950	0.343	11.776	29.536	6.306	0.213	0.556
	40	11.878	19.144	-0.277	-0.014	11.876	29.266	2.657	0.091	0.076
	41	12.640	18.862	7.354	0.390	12.640	29.266	8.279	0.283	0.673
	42	12.742	19.050	0.513	0.027	12.740	28.951	1.829	0.063	0.090
	43	12.848	19.144	7.046	0.368	12.848	29.176	6.624	0.227	0.595
	44	12.950	16.463	0.109	0.007	12.946	28.141	2.635	0.094	0.100
MLC EMS-	45	13.156	26.999	4.175	0.155	13.156	43.314	5.436	0.126	0.280
	46	13.262	26.388	-0.585	-0.022	13.260	42.774	3.251	0.076	0.054
	47	13.364	26.952	0.513	0.019	13.364	40.613	-2.541	-0.063	-0.044
	48	13.470	25.823	-1.067	-0.041	13.468	40.297	2.678	0.066	0.025
	49	14.230	25.682	4.271	0.166	14.230	37.461	5.266	0.141	0.307
	50	14.336	25.306	-0.585	-0.023	14.334	36.560	2.805	0.077	0.054
	51	14.440	26.999	2.171	0.080	14.440	38.001	-1.947	-0.051	0.029
	52	14.544	26.246	-1.471	-0.056	14.542	39.622	3.293	0.083	0.027
SC EMS-1	53	14.752	21.073	7.585	0.360	14.752	28.096	9.424	0.335	0.695
	54	14.854	21.731	0.475	0.022	14.852	25.844	1.490	0.058	0.079
	55	14.962	19.991	6.641	0.332	14.960	29.987	6.942	0.232	0.564
	56	15.064	20.743	0.070	0.003	15.062	31.653	2.317	0.073	0.077
	57	15.834	21.026	7.605	0.362	15.834	28.276	7.154	0.253	0.615
	58	15.936	19.803	0.263	0.013	15.934	29.311	1.956	0.067	0.080
	59	16.042	18.674	6.294	0.337	16.042	28.546	6.369	0.223	0.560
	60	16.146	16.416	-0.065	-0.004	16.142	28.186	2.805	0.100	0.096

WA12_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4	1	2.542	24.398	10.796	0.442	2.540	36.769	12.469	0.339	0.782
	2	2.702	35.347	0.554	0.016	2.698	38.343	0.383	0.010	0.026
	3	3.138	25.855	12.004	0.464	3.136	33.620	14.124	0.420	0.884
	4	3.296	33.561	0.592	0.018	3.292	37.294	0.229	0.006	0.024
LOCO 4	5	3.576	23.176	8.053	0.347	3.576	37.119	9.178	0.247	0.595
	6	3.736	30.695	0.112	0.004	3.732	38.518	0.383	0.010	0.014
	7	4.170	24.868	8.321	0.335	4.170	39.306	8.851	0.225	0.560
	8	4.328	30.930	-0.137	-0.004	4.326	37.381	1.115	0.030	0.025
MC EM	9	4.660	21.861	6.768	0.310	4.658	31.389	6.061	0.193	0.503
	10	4.762	23.599	-0.770	-0.033	4.760	30.165	1.807	0.060	0.027
	11	5.774	22.941	7.036	0.307	5.772	32.177	6.446	0.200	0.507
	12	5.876	24.492	0.151	0.006	5.874	29.902	0.595	0.020	0.026
FC EMS	13	6.134	20.780	6.327	0.304	6.132	35.894	7.504	0.209	0.514
	14	6.234	21.955	0.956	0.044	6.232	29.159	0.614	0.021	0.065
	15	6.748	23.881	7.151	0.299	6.746	32.876	7.754	0.236	0.535
	16	6.848	29.332	0.726	0.025	6.846	28.547	0.961	0.034	0.058
T-5	17	7.068	20.733	8.034	0.387	7.068	22.118	6.061	0.274	0.662
	18	7.210	18.994	0.036	0.002	7.206	22.511	1.346	0.060	0.062
	19	8.100	18.524	6.691	0.361	8.098	21.462	5.599	0.261	0.622
	20	8.242	19.605	-0.079	-0.004	8.236	21.637	1.115	0.052	0.047
SC EMS	21	8.504	23.035	6.960	0.302	8.502	30.602	7.658	0.250	0.552
	22	8.604	24.774	0.304	0.012	8.602	27.060	0.864	0.032	0.044
	23	8.712	19.981	6.902	0.345	8.710	34.057	6.927	0.203	0.549
	24	8.812	21.062	0.477	0.023	8.810	31.871	1.230	0.039	0.061
	25	9.580	18.430	6.595	0.358	9.576	31.871	6.657	0.209	0.567
	26	9.678	22.847	1.091	0.048	9.676	28.940	0.499	0.017	0.065
	27	9.784	20.780	6.634	0.319	9.784	29.990	6.195	0.207	0.526
	28	9.886	20.498	-0.003	-0.000	9.884	30.252	1.269	0.042	0.042
TRIP-M	29	10.112	29.896	10.316	0.345	10.112	39.043	10.198	0.261	0.606
	30	10.218	31.306	0.975	0.031	10.216	37.731	1.480	0.039	0.070
	31	10.322	30.319	7.267	0.240	10.320	40.880	7.947	0.194	0.434
	32	10.426	28.956	-0.041	-0.001	10.424	41.142	2.231	0.054	0.053
	33	11.060	25.714	7.439	0.289	11.058	38.693	7.870	0.203	0.493
	34	11.164	29.520	0.170	0.006	11.162	36.856	1.038	0.028	0.034
	35	11.268	31.306	9.549	0.305	11.268	41.492	9.621	0.232	0.537
	36	11.374	30.272	0.036	0.001	11.370	39.393	1.904	0.048	0.050
LCC EM	37	11.602	19.981	6.327	0.317	11.598	31.564	6.465	0.205	0.521
	38	11.700	20.028	-0.118	-0.006	11.698	29.990	1.750	0.058	0.052
	39	11.808	21.062	6.710	0.319	11.806	31.652	6.349	0.201	0.519
	40	11.908	20.310	-0.271	-0.013	11.904	30.384	1.750	0.058	0.044
	41	12.672	18.430	7.056	0.383	12.670	31.608	7.466	0.236	0.619
	42	12.772	19.182	0.055	0.003	12.770	30.602	1.307	0.043	0.046
	43	12.878	20.028	6.672	0.333	12.876	32.483	6.696	0.206	0.539
	44	12.978	18.055	0.036	0.002	12.976	29.815	1.731	0.058	0.060
MLC E	45	13.186	28.956	4.159	0.144	13.186	45.778	4.713	0.103	0.247
	46	13.292	28.956	-0.885	-0.031	13.288	44.466	2.231	0.050	0.020
	47	13.394	28.110	1.589	0.057	13.394	40.268	1.788	0.044	0.101
	48	13.500	28.016	-1.000	-0.036	13.498	41.667	1.519	0.036	0.001
	49	14.260	25.949	3.757	0.145	14.258	38.387	3.482	0.091	0.235
	50	14.366	26.748	-0.885	-0.033	14.364	37.644	1.500	0.040	0.007
	51	14.468	28.439	2.567	0.090	14.470	38.999	1.269	0.033	0.123
	52	14.574	27.734	-1.556	-0.056	14.572	41.011	1.827	0.045	-0.012
SC EMS	53	14.784	22.660	7.669	0.338	14.782	29.815	8.582	0.288	0.626
	54	14.884	24.445	0.036	0.001	14.882	26.535	1.269	0.048	0.049
	55	14.994	21.532	6.250	0.290	14.992	32.570	6.292	0.193	0.483
	56	15.094	21.109	-0.099	-0.005	15.092	32.133	1.519	0.047	0.043
	57	15.866	21.861	6.902	0.316	15.864	29.115	6.715	0.231	0.546
	58	15.968	22.190	-0.118	-0.005	15.964	29.159	1.423	0.049	0.043
	59	16.074	19.041	5.713	0.300	16.072	31.783	6.638	0.209	0.509
	60	16.176	17.914	-0.079	-0.004	16.174	30.165	1.692	0.056	0.052



WA12_RN001		CRIB #5								
	TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM	
LOCO 4	1	2.572	26.848	12.228	0.455	2.570	35.968	15.964	0.444	0.899
	2	2.730	37.722	1.467	0.039	2.726	34.946	-0.885	-0.025	0.014
	3	3.166	26.008	12.616	0.485	3.164	33.124	17.468	0.527	1.012
	4	3.326	34.623	1.318	0.038	3.322	35.924	-0.885	-0.025	0.013
LOCO 4	5	3.606	25.430	9.128	0.359	3.604	37.212	11.859	0.319	0.678
	6	3.766	32.679	0.960	0.029	3.762	36.857	-0.175	-0.005	0.025
	7	4.200	25.587	9.754	0.381	4.198	36.990	12.181	0.329	0.711
	8	4.358	33.677	0.692	0.021	4.354	36.546	0.297	0.008	0.029
MC EM	9	4.690	22.646	8.472	0.374	4.688	27.347	6.487	0.237	0.611
	10	4.792	23.486	1.020	0.043	4.788	27.791	0.620	0.022	0.066
	11	5.802	21.648	7.578	0.350	5.800	26.547	7.153	0.269	0.619
	12	5.906	27.478	1.377	0.050	5.902	29.213	-0.132	-0.005	0.046
FC EMS	13	6.162	19.441	6.147	0.316	6.160	34.368	9.839	0.286	0.602
	14	6.264	23.906	1.824	0.076	6.260	27.835	0.190	0.007	0.083
	15	6.776	24.117	7.935	0.329	6.774	30.369	9.603	0.316	0.645
	16	6.878	29.632	1.795	0.061	6.874	25.169	0.297	0.012	0.072
T-5	17	7.100	21.385	8.055	0.377	7.098	20.858	6.916	0.332	0.708
	18	7.238	19.704	0.930	0.047	7.236	22.991	0.727	0.032	0.079
	19	8.130	19.284	6.982	0.362	8.128	20.992	6.121	0.292	0.654
	20	8.270	19.126	0.900	0.047	8.266	22.458	0.555	0.025	0.072
SC EMS	21	8.532	23.591	7.816	0.331	8.530	30.235	8.764	0.290	0.621
	22	8.634	27.846	1.437	0.052	8.630	25.925	0.276	0.011	0.062
	23	8.740	22.068	8.174	0.370	8.738	34.190	8.571	0.251	0.621
	24	8.842	22.436	1.467	0.065	8.838	30.991	0.491	0.016	0.081
	25	9.606	21.700	8.055	0.371	9.604	31.213	7.926	0.254	0.625
	26	9.708	24.852	2.122	0.085	9.704	26.547	-0.240	-0.009	0.076
	27	9.814	21.543	7.309	0.339	9.812	29.435	7.110	0.242	0.581
	28	9.916	21.332	0.900	0.042	9.912	27.124	1.050	0.039	0.081
TRIP-M	29	10.142	32.364	11.513	0.356	10.140	37.523	12.224	0.326	0.682
	30	10.248	33.835	1.795	0.053	10.244	35.701	-0.304	-0.009	0.045
	31	10.350	32.311	9.307	0.288	10.348	40.723	9.409	0.231	0.519
	32	10.456	31.261	0.841	0.027	10.452	39.301	0.921	0.023	0.050
	33	11.090	28.739	9.187	0.320	11.088	37.390	9.646	0.258	0.578
	34	11.194	33.572	0.900	0.027	11.190	34.990	-0.670	-0.019	0.008
	35	11.298	32.206	11.215	0.348	11.296	40.056	11.752	0.293	0.642
	36	11.402	35.148	0.841	0.024	11.398	37.035	0.405	0.011	0.035
LCC EM	37	11.628	19.914	6.982	0.351	11.628	28.413	7.711	0.271	0.622
	38	11.730	22.015	0.721	0.033	11.726	26.058	0.878	0.034	0.066
	39	11.836	22.646	7.965	0.352	11.834	30.991	7.969	0.257	0.609
	40	11.938	23.381	0.930	0.040	11.934	28.324	0.684	0.024	0.064
	41	12.700	20.439	7.876	0.385	12.698	31.924	9.345	0.293	0.678
	42	12.798	15.712	1.079	0.069	12.798	27.435	0.297	0.011	0.080
	43	12.906	20.072	7.935	0.395	12.904	29.835	8.614	0.289	0.684
	44	13.008	20.282	1.079	0.053	13.004	28.858	0.706	0.024	0.078
MLC E	45	13.216	31.050	5.342	0.172	13.214	42.812	5.949	0.139	0.311
	46	13.322	31.576	0.453	0.014	13.318	42.101	0.985	0.023	0.038
	47	13.424	32.731	2.540	0.078	13.422	38.501	-2.131	-0.055	0.022
	48	13.530	30.210	-0.173	-0.006	13.526	41.034	1.071	0.026	0.020
	49	14.290	30.210	4.984	0.165	14.288	37.612	5.412	0.144	0.309
	50	14.396	30.525	-0.203	-0.007	14.392	35.790	1.157	0.032	0.026
	51	14.498	30.420	3.255	0.107	14.496	36.901	-2.002	-0.054	0.053
	52	14.604	30.315	-1.723	-0.057	14.600	39.212	3.199	0.082	0.025
SC EMS	53	14.812	23.801	8.919	0.375	14.810	28.191	9.646	0.342	0.717
	54	14.914	25.640	0.870	0.034	14.910	25.213	0.620	0.025	0.059
	55	15.020	23.696	7.906	0.334	15.018	32.990	8.141	0.247	0.580
	56	15.124	23.171	1.109	0.048	15.120	30.191	0.448	0.015	0.063
	57	15.894	23.906	8.412	0.352	15.892	30.280	8.550	0.282	0.634
	58	15.996	22.961	0.841	0.037	15.992	28.147	0.448	0.016	0.053
	59	16.102	18.548	6.922	0.373	16.100	30.680	8.421	0.274	0.648
	60	16.206	19.704	0.990	0.050	16.202	27.924	0.792	0.028	0.079

WA12_RN002		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	2.802	22.028	9.292	0.422	2.800	39.825	10.888	0.273	0.695
	2	2.960	26.087	-1.579	-0.061	2.956	40.495	3.065	0.076	0.015
	3	3.392	23.007	10.121	0.440	3.390	36.832	12.342	0.335	0.775
	4	3.548	25.573	-0.977	-0.038	3.544	40.361	1.419	0.035	-0.003
LOCO 4901	5	3.826	22.821	7.466	0.327	3.824	38.127	8.366	0.219	0.547
	6	3.984	24.967	-2.243	-0.090	3.980	41.344	2.766	0.067	-0.023
	7	4.414	24.174	8.296	0.343	4.412	37.949	9.071	0.239	0.582
	8	4.572	27.020	-1.994	-0.074	4.568	41.880	2.466	0.059	-0.015
MC EMS-1	9	4.900	19.975	6.989	0.350	4.898	27.718	5.587	0.202	0.551
	10	5.002	21.421	-1.496	-0.070	4.998	29.729	2.082	0.070	0.000
	11	6.004	20.861	6.533	0.313	6.002	28.880	5.459	0.189	0.502
	12	6.106	23.147	-1.143	-0.049	6.102	31.516	1.398	0.044	-0.005
FC EMS-1	13	6.360	17.222	5.143	0.299	6.358	33.481	7.489	0.224	0.522
	14	6.462	20.721	-0.604	-0.029	6.458	33.034	2.231	0.068	0.038
	15	6.970	20.301	5.143	0.253	6.968	33.571	8.216	0.245	0.498
	16	7.072	24.827	-1.703	-0.069	7.068	33.794	2.723	0.081	0.012
T-5	17	7.290	18.809	6.138	0.326	7.288	23.608	5.502	0.233	0.559
	18	7.430	16.662	-1.205	-0.072	7.426	22.938	1.526	0.067	-0.006
	19	8.316	17.036	5.143	0.302	8.314	23.608	4.604	0.195	0.497
	20	8.456	17.036	-1.164	-0.068	8.452	23.608	1.355	0.057	-0.011
SC EMS-2	21	8.718	20.301	5.350	0.264	8.716	28.880	6.549	0.227	0.490
	22	8.820	22.914	-2.118	-0.092	8.816	29.550	2.808	0.095	0.003
	23	8.926	21.048	6.055	0.288	8.922	31.426	5.886	0.187	0.475
	24	9.028	20.301	-1.122	-0.055	9.024	33.347	2.274	0.068	0.013
	25	9.790	18.155	5.931	0.327	9.788	31.828	6.934	0.218	0.545
	26	9.892	19.742	-0.977	-0.049	9.888	31.560	2.402	0.076	0.027
	27	9.998	19.928	6.097	0.306	9.996	29.595	5.673	0.192	0.498
	28	10.100	18.902	-1.413	-0.075	10.096	30.086	2.338	0.078	0.003
TRIP-MLC	29	10.326	29.679	8.109	0.273	10.324	39.825	9.093	0.228	0.502
	30	10.432	29.912	-0.998	-0.033	10.428	38.127	2.659	0.070	0.036
	31	10.536	29.446	6.304	0.214	10.532	38.976	5.459	0.140	0.354
	32	10.640	28.419	-2.408	-0.085	10.636	42.863	3.407	0.079	-0.005
	33	11.276	26.320	8.213	0.312	11.274	39.602	8.708	0.220	0.532
	34	11.382	26.320	-2.035	-0.077	11.378	38.261	2.915	0.076	-0.001
	35	11.486	29.632	8.462	0.286	11.482	38.842	7.660	0.197	0.483
	36	11.590	30.566	-2.471	-0.081	11.586	41.791	3.236	0.077	-0.003
LCC EMS-1	37	11.818	18.342	4.935	0.269	11.816	28.299	5.459	0.193	0.462
	38	11.920	18.295	-1.745	-0.095	11.916	32.052	3.001	0.094	-0.002
	39	12.026	20.768	5.433	0.262	12.024	30.443	5.095	0.167	0.429
	40	12.128	18.809	-1.662	-0.088	12.124	32.007	2.488	0.078	-0.011
	41	12.894	18.202	5.309	0.292	12.892	29.639	6.442	0.217	0.509
	42	12.996	18.482	-1.620	-0.088	12.994	30.399	2.381	0.078	-0.009
	43	13.102	18.435	5.184	0.281	13.100	29.952	4.903	0.164	0.445
	44	13.204	17.875	-1.413	-0.079	13.200	31.739	2.295	0.072	-0.007
MLC EMS-	45	13.414	27.020	3.483	0.129	13.410	44.963	4.689	0.104	0.233
	46	13.518	27.020	-2.491	-0.092	13.514	45.946	3.343	0.073	-0.019
	47	13.622	26.180	0.185	0.007	13.620	42.640	-1.381	-0.032	-0.025
	48	13.728	26.507	-2.574	-0.097	13.724	40.808	2.082	0.051	-0.046
	49	14.492	25.107	2.985	0.119	14.488	39.870	4.775	0.120	0.239
	50	14.596	24.454	-2.284	-0.093	14.594	37.993	2.253	0.059	-0.034
	51	14.702	25.807	1.180	0.046	14.698	40.585	-1.958	-0.048	-0.003
	52	14.808	26.647	-2.761	-0.104	14.802	40.495	1.996	0.049	-0.054
SC EMS-1	53	15.016	21.328	5.724	0.268	15.014	27.986	6.934	0.248	0.516
	54	15.118	21.981	-1.828	-0.083	15.116	28.969	2.488	0.086	0.003
	55	15.226	20.488	5.226	0.255	15.222	30.577	5.694	0.186	0.441
	56	15.328	20.768	-1.475	-0.071	15.324	32.766	2.274	0.069	-0.002
	57	16.100	20.301	5.952	0.293	16.096	27.718	6.228	0.225	0.518
	58	16.202	20.488	-1.952	-0.095	16.198	30.667	2.573	0.084	-0.011
	59	16.308	17.129	4.396	0.257	16.306	30.041	5.395	0.180	0.436
	60	16.412	17.595	-1.537	-0.087	16.408	31.158	2.488	0.080	-0.008

WA12_RN002		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	2.832	23.198	9.485	0.409	2.830	42.200	9.791	0.232	0.641
	2	2.988	30.146	-1.283	-0.043	2.986	41.590	0.917	0.022	-0.021
	3	3.420	23.106	10.566	0.457	3.418	39.064	12.047	0.308	0.766
	4	3.578	28.941	-1.548	-0.053	3.574	41.677	0.101	0.002	-0.051
LOCO 4901	5	3.856	24.032	7.477	0.311	3.854	39.935	7.728	0.194	0.505
	6	4.014	29.775	-1.945	-0.065	4.010	43.027	0.144	0.003	-0.062
	7	4.444	24.958	8.823	0.354	4.442	41.546	8.824	0.212	0.566
	8	4.600	30.331	-1.834	-0.060	4.598	42.984	0.230	0.005	-0.055
MC EMS-1	9	4.928	19.864	5.601	0.282	4.926	29.177	5.257	0.180	0.462
	10	5.030	20.141	-1.106	-0.055	5.028	27.826	0.746	0.027	-0.028
	11	6.032	20.003	4.807	0.240	6.030	27.260	4.505	0.165	0.406
	12	6.134	20.697	-1.349	-0.065	6.132	29.090	0.681	0.023	-0.042
FC EMS-1	13	6.388	18.335	4.013	0.219	6.386	34.316	6.332	0.185	0.403
	14	6.490	19.771	-0.996	-0.050	6.488	30.309	0.831	0.027	-0.023
	15	6.998	22.411	4.278	0.191	6.998	33.881	6.332	0.187	0.378
	16	7.100	23.291	-2.055	-0.088	7.098	30.832	1.777	0.058	-0.031
T-5	17	7.320	16.853	5.006	0.297	7.318	25.518	5.687	0.223	0.520
	18	7.458	17.085	-1.724	-0.101	7.454	24.429	1.175	0.048	-0.053
	19	8.346	16.529	3.969	0.240	8.344	25.518	4.419	0.173	0.413
	20	8.484	17.177	-1.459	-0.085	8.482	24.603	0.831	0.034	-0.051
SC EMS-2	21	8.746	21.392	4.542	0.212	8.746	32.574	6.224	0.191	0.403
	22	8.848	23.476	-1.790	-0.076	8.844	28.741	1.347	0.047	-0.029
	23	8.952	21.624	5.116	0.237	8.952	34.490	5.021	0.146	0.382
	24	9.056	20.327	-1.526	-0.075	9.052	33.793	1.197	0.035	-0.040
	25	9.818	18.845	5.028	0.267	9.818	33.097	6.009	0.182	0.448
	26	9.920	19.817	-1.106	-0.056	9.916	32.922	1.240	0.038	-0.018
	27	10.026	20.558	5.116	0.249	10.024	29.743	4.806	0.162	0.410
	28	10.128	19.123	-1.680	-0.088	10.124	30.309	1.412	0.047	-0.041
TRIP-MLC	29	10.356	30.053	6.683	0.222	10.352	41.285	8.351	0.202	0.425
	30	10.460	29.127	-0.753	-0.026	10.456	38.323	1.111	0.029	0.003
	31	10.564	31.442	5.293	0.168	10.562	44.421	5.086	0.114	0.283
	32	10.670	28.154	-2.386	-0.085	10.666	43.071	1.863	0.043	-0.042
	33	11.304	26.996	7.146	0.265	11.302	41.241	7.255	0.176	0.441
	34	11.410	27.274	-1.636	-0.060	11.408	38.280	1.218	0.032	-0.028
	35	11.514	30.192	7.367	0.244	11.512	43.463	7.707	0.177	0.421
	36	11.620	30.007	-2.143	-0.071	11.616	40.893	1.369	0.033	-0.038
LCC EMS-1	37	11.846	19.632	3.947	0.201	11.846	29.786	5.236	0.176	0.377
	38	11.948	17.363	-1.702	-0.098	11.946	30.875	1.949	0.063	-0.035
	39	12.054	20.883	4.719	0.226	12.052	31.964	4.699	0.147	0.373
	40	12.156	18.474	-2.165	-0.117	12.154	33.489	1.777	0.053	-0.064
	41	12.922	19.771	4.719	0.239	12.922	33.227	5.773	0.174	0.412
	42	13.026	19.215	-1.614	-0.084	13.022	32.530	1.455	0.045	-0.039
	43	13.130	19.261	4.653	0.242	13.128	30.396	4.892	0.161	0.403
	44	13.234	18.150	-1.614	-0.089	13.230	32.966	1.390	0.042	-0.047
MLC EMS-	45	13.442	26.440	1.674	0.063	13.440	46.555	3.904	0.084	0.147
	46	13.548	26.857	-2.474	-0.092	13.544	45.640	1.820	0.040	-0.052
	47	13.650	28.200	-1.195	-0.042	13.650	43.680	-2.456	-0.056	-0.099
	48	13.756	26.487	-3.048	-0.115	13.752	43.550	1.261	0.029	-0.086
	49	14.520	26.348	1.630	0.062	14.518	42.592	3.968	0.093	0.155
	50	14.626	25.143	-2.673	-0.106	14.622	39.673	1.476	0.037	-0.069
	51	14.730	27.413	-0.489	-0.018	14.728	40.283	-2.928	-0.073	-0.091
	52	14.836	26.626	-3.423	-0.129	14.832	41.982	1.369	0.033	-0.096
SC EMS-1	53	15.044	21.531	4.586	0.213	15.042	29.874	7.041	0.236	0.449
	54	15.148	23.152	-1.680	-0.073	15.144	29.699	1.218	0.041	-0.032
	55	15.252	21.624	4.631	0.214	15.252	33.140	5.064	0.153	0.367
	56	15.356	21.253	-1.967	-0.093	15.352	34.839	1.261	0.036	-0.056
	57	16.128	22.318	4.984	0.223	16.126	30.657	5.257	0.171	0.395
	58	16.230	20.234	-1.989	-0.098	16.228	32.705	1.820	0.056	-0.043
	59	16.338	18.196	3.660	0.201	16.336	30.527	4.613	0.151	0.352
	60	16.440	16.853	-1.945	-0.115	16.436	31.616	1.884	0.060	-0.056

WA12_RN002		CRIB #3								
AXLE SUM		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	2.860	24.322	11.690	0.481	2.858	36.611	13.006	0.355	0.836
	2	3.018	30.672	1.593	0.052	3.014	36.611	1.359	0.037	0.089
	3	3.450	26.156	9.686	0.370	3.448	38.187	13.770	0.361	0.731
	4	3.606	29.731	1.015	0.034	3.604	35.980	0.978	0.027	0.061
LOCO 4901	5	3.884	26.250	8.819	0.336	3.884	37.601	10.821	0.288	0.624
	6	4.042	29.778	0.784	0.026	4.038	37.736	-0.359	-0.010	0.017
	7	4.472	25.592	10.380	0.406	4.472	37.646	12.094	0.321	0.727
	8	4.628	28.884	0.263	0.009	4.626	39.492	0.872	0.022	0.031
MC EMS-1	9	4.956	21.076	7.412	0.352	4.956	29.047	7.342	0.253	0.604
	10	5.058	20.888	0.938	0.045	5.056	27.020	0.575	0.021	0.066
	11	6.060	19.806	6.565	0.331	6.062	27.966	6.812	0.244	0.575
	12	6.162	21.076	0.745	0.035	6.160	26.705	0.681	0.025	0.061
FC EMS-1	13	6.418	17.878	5.948	0.333	6.416	32.468	8.148	0.251	0.584
	14	6.518	21.500	1.111	0.052	6.516	29.722	1.062	0.036	0.087
	15	7.028	20.606	6.160	0.299	7.028	31.793	7.597	0.239	0.538
	16	7.130	25.027	0.494	0.020	7.128	29.272	2.887	0.099	0.118
T-5	17	7.346	16.467	6.776	0.412	7.348	22.338	6.897	0.309	0.720
	18	7.486	17.125	0.494	0.029	7.484	22.158	1.487	0.067	0.096
	19	8.374	16.749	6.198	0.370	8.374	21.482	5.942	0.277	0.647
	20	8.514	18.113	0.379	0.021	8.510	20.717	1.317	0.064	0.084
SC EMS-2	21	8.776	21.265	6.776	0.319	8.774	29.362	8.339	0.284	0.603
	22	8.878	24.134	0.995	0.041	8.874	25.129	1.296	0.052	0.093
	23	8.982	20.089	6.911	0.344	8.982	30.712	7.088	0.231	0.575
	24	9.084	20.888	0.880	0.042	9.082	31.568	1.699	0.054	0.096
	25	9.848	18.442	7.046	0.382	9.848	30.712	7.788	0.254	0.636
	26	9.950	19.618	1.497	0.076	9.948	29.722	0.956	0.032	0.108
	27	10.054	20.042	6.834	0.341	10.054	29.092	6.557	0.225	0.566
	28	10.156	18.725	0.572	0.031	10.154	26.750	2.399	0.090	0.120
TRIP-MLC	29	10.384	29.543	9.243	0.313	10.384	38.412	10.503	0.273	0.586
	30	10.490	30.672	2.055	0.067	10.486	35.125	1.020	0.029	0.096
	31	10.592	30.577	7.046	0.230	10.592	41.879	7.088	0.169	0.400
	32	10.698	27.567	0.244	0.009	10.696	40.258	2.972	0.074	0.083
	33	11.334	25.592	8.954	0.350	11.332	37.646	9.973	0.265	0.615
	34	11.438	28.602	0.861	0.030	11.436	34.855	0.935	0.027	0.057
	35	11.542	30.672	9.339	0.305	11.542	41.113	10.058	0.245	0.549
	36	11.648	30.248	0.629	0.021	11.646	36.701	1.550	0.042	0.063
LCC EMS-1	37	11.876	19.665	6.603	0.336	11.876	28.551	7.066	0.247	0.583
	38	11.978	18.066	0.494	0.027	11.976	26.705	2.187	0.082	0.109
	39	12.082	19.853	6.642	0.335	12.082	29.992	6.621	0.221	0.555
	40	12.186	18.819	0.071	0.004	12.182	30.262	2.632	0.087	0.091
	41	12.952	18.442	6.719	0.364	12.952	29.362	7.427	0.253	0.617
	42	13.054	19.759	0.726	0.037	13.052	29.362	1.359	0.046	0.083
	43	13.160	18.160	6.526	0.359	13.160	29.767	7.045	0.237	0.596
	44	13.262	17.972	0.514	0.029	13.260	28.326	1.890	0.067	0.095
MLC EMS-	45	13.470	26.532	4.329	0.163	13.470	43.274	5.624	0.130	0.293
	46	13.576	26.909	-0.604	-0.022	13.574	43.410	3.120	0.072	0.049
	47	13.680	27.661	1.554	0.056	13.680	40.393	-2.290	-0.057	-0.000
	48	13.786	25.921	-0.970	-0.037	13.782	40.618	2.590	0.064	0.026
	49	14.550	25.780	4.117	0.160	14.548	36.431	5.051	0.139	0.298
	50	14.656	26.250	-0.642	-0.024	14.652	36.025	2.760	0.077	0.052
	51	14.760	28.085	1.863	0.066	14.760	37.511	-1.865	-0.050	0.017
	52	14.866	26.015	-1.394	-0.054	14.862	38.547	3.120	0.081	0.027
SC EMS-1	53	15.074	20.841	7.066	0.339	15.072	27.786	8.785	0.316	0.655
	54	15.176	22.111	0.726	0.033	15.174	25.985	1.232	0.047	0.080
	55	15.282	19.806	6.410	0.324	15.282	29.722	7.151	0.241	0.564
	56	15.386	20.700	0.552	0.027	15.384	30.622	1.996	0.065	0.092
	57	16.156	21.076	7.374	0.350	16.158	27.201	7.215	0.265	0.615
	58	16.260	20.089	0.398	0.020	16.258	28.326	1.996	0.070	0.090
	59	16.366	18.301	5.948	0.325	16.366	28.686	6.239	0.217	0.542
	60	16.470	16.655	0.321	0.019	16.466	27.651	2.441	0.088	0.108

WA12_RN002		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	2.890	25.559	11.042	0.432	2.888	38.111	12.160	0.319	0.751
	2	3.048	32.184	0.589	0.018	3.044	37.192	1.209	0.033	0.051
	3	3.480	23.538	9.565	0.406	3.476	33.212	10.793	0.325	0.731
	4	3.636	32.560	-0.677	-0.021	3.632	36.492	1.402	0.038	0.018
LOCO 49	5	3.914	24.102	8.894	0.369	3.912	36.711	9.619	0.262	0.631
	6	4.070	31.808	0.282	0.009	4.068	38.942	0.594	0.015	0.024
	7	4.504	25.089	9.412	0.375	4.500	36.842	10.178	0.276	0.651
	8	4.660	31.057	-0.792	-0.025	4.656	38.942	1.325	0.034	0.009
MC EMS	9	4.986	19.967	6.727	0.337	4.986	32.250	6.406	0.199	0.536
	10	5.090	21.847	-0.389	-0.018	5.086	30.370	1.325	0.044	0.026
	11	6.090	22.035	5.921	0.269	6.090	31.725	5.309	0.167	0.436
	12	6.194	22.974	-0.293	-0.013	6.190	30.151	1.017	0.034	0.021
FC EMS-	13	6.446	20.437	5.749	0.281	6.446	34.437	6.406	0.186	0.467
	14	6.548	20.907	0.167	0.008	6.546	30.807	1.767	0.057	0.065
	15	7.058	24.149	6.190	0.256	7.056	32.688	6.540	0.200	0.456
	16	7.160	27.015	0.206	0.008	7.156	30.763	1.941	0.063	0.071
T-5	17	7.376	20.061	7.245	0.361	7.376	21.972	5.905	0.269	0.630
	18	7.516	17.430	-0.408	-0.023	7.514	22.322	1.440	0.065	0.041
	19	8.402	19.074	5.864	0.307	8.402	21.273	4.981	0.234	0.542
	20	8.544	18.510	-0.466	-0.025	8.540	22.497	1.267	0.056	0.031
SC EMS-	21	8.806	22.833	6.650	0.291	8.804	30.588	7.233	0.236	0.528
	22	8.906	26.029	0.302	0.012	8.904	26.521	0.882	0.033	0.045
	23	9.014	20.578	6.669	0.324	9.012	32.688	6.252	0.191	0.515
	24	9.114	21.330	0.493	0.023	9.112	31.507	1.113	0.035	0.058
	25	9.880	18.369	6.401	0.348	9.876	32.206	6.502	0.202	0.550
	26	9.978	21.330	0.781	0.037	9.976	27.964	0.613	0.022	0.059
	27	10.086	20.813	6.458	0.310	10.082	29.932	6.078	0.203	0.513
	28	10.186	20.437	0.186	0.009	10.184	29.714	1.171	0.039	0.049
TRIP-ML	29	10.414	30.117	8.280	0.275	10.412	38.942	8.715	0.224	0.499
	30	10.518	31.527	1.165	0.037	10.516	37.105	1.036	0.028	0.065
	31	10.622	30.681	6.938	0.226	10.622	42.091	7.310	0.174	0.400
	32	10.728	28.519	-0.562	-0.020	10.726	39.117	2.287	0.058	0.039
	33	11.362	26.546	7.916	0.298	11.362	38.636	8.272	0.214	0.512
	34	11.470	29.553	0.206	0.007	11.466	37.455	0.978	0.026	0.033
	35	11.572	31.245	8.530	0.273	11.570	42.878	8.869	0.207	0.480
	36	11.680	31.433	-0.025	-0.001	11.676	37.542	1.671	0.045	0.044
LCC EMS	37	11.906	20.625	6.324	0.307	11.904	31.069	6.617	0.213	0.520
	38	12.008	20.155	-0.082	-0.004	12.006	28.620	1.421	0.050	0.046
	39	12.114	19.826	6.132	0.309	12.112	31.769	6.213	0.196	0.505
	40	12.216	19.967	-0.408	-0.020	12.212	30.938	1.671	0.054	0.034
	41	12.984	18.463	6.113	0.331	12.982	30.588	6.559	0.214	0.546
	42	13.086	20.249	0.244	0.012	13.082	29.495	0.805	0.027	0.039
	43	13.192	19.685	5.998	0.305	13.190	31.419	6.694	0.213	0.518
	44	13.292	18.510	0.071	0.004	13.290	29.451	1.267	0.043	0.047
MLC EM	45	13.502	29.224	4.291	0.147	13.500	44.933	4.635	0.103	0.250
	46	13.608	28.989	-0.638	-0.022	13.604	43.578	1.979	0.045	0.023
	47	13.708	28.096	1.203	0.043	13.708	43.621	-1.851	-0.042	0.000
	48	13.818	28.002	-1.137	-0.041	13.812	42.266	1.652	0.039	-0.002
	49	14.580	26.593	3.927	0.148	14.578	37.979	3.557	0.094	0.241
	50	14.686	27.720	-0.907	-0.033	14.682	37.411	1.440	0.039	0.006
	51	14.790	29.506	2.354	0.080	14.788	37.979	-2.236	-0.059	0.021
	52	14.896	28.049	-1.501	-0.054	14.892	39.641	1.633	0.041	-0.012
SC EMS-	53	15.104	22.410	6.804	0.304	15.102	29.189	8.215	0.281	0.585
	54	15.206	24.337	0.071	0.003	15.204	27.221	1.075	0.039	0.042
	55	15.314	21.095	6.056	0.287	15.312	32.906	6.579	0.200	0.487
	56	15.416	22.223	0.071	0.003	15.412	31.813	1.344	0.042	0.045
	57	16.190	21.283	6.995	0.329	16.186	29.670	6.386	0.215	0.544
	58	16.292	20.907	-0.447	-0.021	16.286	29.670	1.614	0.054	0.033
	59	16.398	18.463	5.768	0.312	16.396	31.988	6.136	0.192	0.504
	60	16.500	18.416	0.071	0.004	16.496	29.232	1.460	0.050	0.054

WA12_RN002		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	2.920	25.353	11.731	0.463	2.916	36.305	16.760	0.462	0.924
	2	3.076	37.382	1.417	0.038	3.072	35.949	1.846	0.051	0.089
	3	3.508	26.771	11.731	0.438	3.506	32.883	13.945	0.424	0.862
	4	3.664	31.709	0.761	0.024	3.662	37.194	2.405	0.065	0.089
LOCO 49	5	3.944	23.357	5.679	0.243	3.942	37.682	11.731	0.311	0.554
	6	4.100	31.184	0.910	0.029	4.096	38.660	1.094	0.028	0.057
	7	4.532	23.620	5.888	0.249	4.530	40.571	11.366	0.280	0.529
	8	4.688	32.970	0.761	0.023	4.684	38.216	2.190	0.057	0.080
MC EMS	9	5.016	22.149	5.292	0.239	5.014	30.839	6.208	0.201	0.440
	10	5.118	23.409	0.910	0.039	5.114	28.617	1.760	0.062	-0.100
	11	6.120	22.674	5.828	0.257	6.118	31.727	7.304	0.230	0.487
	12	6.222	25.195	0.999	0.040	6.218	28.528	1.115	0.039	0.079
FC EMS-	13	6.476	22.201	6.246	0.281	6.474	32.927	8.508	0.258	0.540
	14	6.578	21.729	1.268	0.058	6.574	29.417	3.243	0.110	0.169
	15	7.086	25.353	7.617	0.300	7.084	31.416	9.110	0.290	0.590
	16	7.188	26.771	1.357	0.051	7.184	27.372	2.082	0.076	0.127
T-5	17	7.406	19.522	7.289	0.373	7.404	21.062	6.746	0.320	0.694
	18	7.546	20.520	0.910	0.044	7.542	22.573	1.072	0.048	0.092
	19	8.434	18.944	6.514	0.344	8.432	21.862	5.951	0.272	0.616
	20	8.572	19.627	0.701	0.036	8.568	22.217	1.244	0.056	0.092
SC EMS-	21	8.834	23.620	7.706	0.326	8.832	28.839	8.400	0.291	0.618
	22	8.936	28.347	1.208	0.043	8.932	26.172	0.900	0.034	0.077
	23	9.042	22.727	8.422	0.371	9.040	32.616	8.143	0.250	0.620
	24	9.144	23.252	1.595	0.069	9.140	30.261	1.115	0.037	0.105
	25	9.906	20.520	7.498	0.365	9.904	32.705	8.035	0.246	0.611
	26	10.008	24.513	1.834	0.075	10.006	26.706	0.471	0.018	0.092
	27	10.114	21.361	7.856	0.368	10.112	28.617	7.541	0.264	0.631
	28	10.216	22.201	1.327	0.060	10.212	27.106	1.438	0.053	0.113
TRIP-ML	29	10.442	32.340	10.419	0.322	10.442	37.505	10.786	0.288	0.610
	30	10.548	33.915	2.072	0.061	10.544	35.238	0.771	0.022	0.083
	31	10.652	32.182	8.959	0.278	10.650	42.482	10.206	0.240	0.519
	32	10.756	31.394	0.910	0.029	10.754	39.149	2.534	0.065	0.094
	33	11.392	28.662	9.048	0.316	11.390	37.371	9.303	0.249	0.565
	34	11.498	32.445	0.820	0.025	11.494	35.816	1.653	0.046	0.071
	35	11.602	32.340	10.091	0.312	11.600	39.504	10.657	0.270	0.582
	36	11.708	32.129	0.671	0.021	11.704	37.016	2.383	0.064	0.085
LCC EMS	37	11.934	20.941	7.021	0.335	11.932	28.306	7.648	0.270	0.605
	38	12.036	22.464	0.880	0.039	12.034	26.128	1.674	0.064	0.103
	39	12.142	21.729	7.438	0.342	12.140	31.105	7.734	0.249	0.591
	40	12.244	21.623	0.850	0.039	12.242	28.883	1.545	0.054	0.093
	41	13.012	19.942	7.080	0.355	13.010	31.505	8.637	0.274	0.629
	42	13.114	22.411	1.238	0.055	13.110	28.217	0.600	0.021	0.076
	43	13.218	19.785	7.349	0.371	13.216	30.483	8.229	0.270	0.641
	44	13.322	20.678	1.148	0.056	13.318	28.261	1.180	0.042	0.097
MLC EM	45	13.530	31.499	5.679	0.180	13.528	42.749	6.144	0.144	0.324
	46	13.636	31.814	0.433	0.014	13.632	41.593	2.190	0.053	0.066
	47	13.740	31.447	2.579	0.082	13.738	40.882	2.254	0.055	0.137
	48	13.844	29.713	-0.819	-0.028	13.842	39.727	2.534	0.064	0.036
	49	14.608	30.501	5.053	0.166	14.608	37.327	5.198	0.139	0.305
	50	14.714	30.343	-0.760	-0.025	14.712	35.505	1.889	0.053	0.028
	51	14.818	31.184	3.265	0.105	14.816	36.527	-2.581	-0.071	0.034
	52	14.924	30.764	-1.713	-0.056	14.922	36.705	3.071	0.084	0.028
SC EMS-	53	15.134	23.199	8.273	0.357	15.132	27.861	9.582	0.344	0.701
	54	15.236	25.826	0.850	0.033	15.232	24.839	1.094	0.044	0.077
	55	15.342	23.935	7.915	0.331	15.340	33.416	8.400	0.251	0.582
	56	15.446	23.935	1.238	0.052	15.442	29.194	0.986	0.034	0.086
	57	16.218	24.250	8.183	0.337	16.216	29.861	8.186	0.274	0.612
	58	16.320	23.409	0.701	0.030	16.318	27.861	1.545	0.055	0.085
	59	16.426	19.627	7.021	0.358	16.424	29.950	8.143	0.272	0.630
	60	16.530	20.310	1.029	0.051	16.526	27.906	1.545	0.055	0.106

WA19_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	5.288	35.651	11.880	0.333	5.298	30.694	7.023	0.229	0.562
	2	5.624	35.651	3.188	0.089	5.626	28.772	-0.480	-0.017	0.073
	3	6.538	33.412	8.830	0.264	6.544	30.247	4.222	0.140	0.404
	4	6.872	34.858	2.794	0.080	6.874	26.807	-0.737	-0.027	0.053
LOCO 4901	5	7.460	35.231	9.888	0.281	7.468	30.023	5.334	0.178	0.458
	6	7.796	36.631	3.582	0.098	7.798	26.896	-0.715	-0.027	0.071
	7	8.714	36.351	10.054	0.277	8.720	29.219	5.526	0.189	0.466
	8	9.048	35.091	2.918	0.083	9.050	28.058	-0.416	-0.015	0.068
MC EMS-1	9	9.744	27.953	6.320	0.226	9.752	20.240	2.812	0.139	0.365
	10	9.962	27.580	0.864	0.031	9.966	19.480	-0.288	-0.015	0.017
	11	12.110	27.393	6.507	0.238	12.118	19.748	3.004	0.152	0.390
	12	12.328	29.073	0.781	0.027	12.334	19.837	-0.309	-0.016	0.011
FC EMS-1	13	12.870	32.012	8.893	0.278	12.878	22.697	4.864	0.214	0.492
	14	13.090	30.939	2.503	0.081	13.094	20.284	-0.095	-0.005	0.076
	15	14.186	28.466	7.357	0.258	14.194	24.394	3.709	0.152	0.411
	16	14.406	28.653	2.171	0.076	14.410	23.456	-0.544	-0.023	0.053
T-5	17	14.868	18.202	5.885	0.323	14.878	22.116	3.474	0.157	0.480
	18	15.172	21.514	1.383	0.064	15.176	19.212	-0.395	-0.021	0.044
	19	17.094	19.462	6.071	0.312	17.102	20.329	3.432	0.169	0.481
	20	17.398	22.261	1.777	0.080	17.400	18.587	-0.373	-0.020	0.060
SC EMS-2	21	17.962	27.206	7.482	0.275	17.966	24.662	3.325	0.135	0.410
	22	18.184	27.066	0.843	0.031	18.188	24.394	-0.031	-0.001	0.030
	23	18.412	28.279	7.752	0.274	18.422	19.837	4.030	0.203	0.477
	24	18.634	28.326	1.175	0.042	18.640	20.597	0.183	0.009	0.050
	25	20.304	28.000	7.835	0.280	20.310	22.339	3.432	0.154	0.433
	26	20.522	28.606	1.466	0.051	20.530	21.982	-0.202	-0.009	0.042
	27	20.756	27.673	7.565	0.273	20.766	21.178	4.800	0.227	0.500
	28	20.980	27.906	1.279	0.046	20.984	19.837	0.247	0.012	0.058
TRIP-MLC	29	21.422	37.657	10.220	0.271	21.432	31.989	3.880	0.121	0.393
	30	21.656	38.637	2.441	0.063	21.658	32.615	-0.715	-0.022	0.041
	31	21.882	36.537	10.614	0.291	21.888	29.755	5.441	0.183	0.473
	32	22.116	35.651	1.507	0.042	22.118	30.828	-0.501	-0.016	0.026
	33	23.518	36.817	13.104	0.356	23.526	28.236	5.355	0.190	0.546
	34	23.752	35.371	0.636	0.018	23.754	31.096	-0.416	-0.013	0.005
	35	23.982	38.590	11.361	0.294	23.988	29.755	5.398	0.181	0.476
	36	24.216	37.937	1.590	0.042	24.222	28.772	-0.544	-0.019	0.023
LCC EMS-1	37	24.668	26.180	7.938	0.303	24.678	23.277	3.816	0.164	0.467
	38	24.894	27.673	0.387	0.014	24.900	20.910	-0.159	-0.008	0.006
	39	25.132	26.973	7.565	0.280	25.140	18.989	4.222	0.222	0.503
	40	25.358	27.766	1.030	0.037	25.364	18.676	0.097	0.005	0.042
	41	27.074	28.466	9.162	0.322	27.082	20.418	4.265	0.209	0.531
	42	27.302	27.860	1.030	0.037	27.310	20.642	0.012	0.001	0.038
	43	27.544	29.166	7.482	0.257	27.548	19.033	3.645	0.192	0.448
	44	27.772	28.606	0.449	0.016	27.776	19.167	-0.031	-0.002	0.014
MLC EMS-	45	28.242	42.089	6.237	0.148	28.250	31.185	-0.245	-0.008	0.140
	46	28.482	42.509	0.595	0.014	28.484	30.247	-0.779	-0.026	-0.012
	47	28.716	38.684	9.287	0.240	28.722	25.869	4.564	0.176	0.417
	48	28.954	38.170	1.051	0.028	28.958	25.869	-0.395	-0.015	0.012
	49	30.688	35.324	7.295	0.207	30.696	28.683	2.641	0.092	0.299
	50	30.932	37.284	1.984	0.053	30.934	26.628	-0.950	-0.036	0.018
	51	31.166	39.057	7.565	0.194	31.174	27.388	2.876	0.105	0.299
	52	31.408	38.590	1.009	0.026	31.412	27.164	-0.566	-0.021	0.005
SC EMS-1	53	31.882	25.993	7.067	0.272	31.890	24.037	1.893	0.079	0.351
	54	32.114	24.780	0.740	0.030	32.122	25.645	-0.651	-0.025	0.004
	55	32.360	29.772	7.752	0.260	32.370	20.418	3.731	0.183	0.443
	56	32.592	27.906	1.092	0.039	32.598	21.893	-0.330	-0.015	0.024
	57	34.364	28.373	8.063	0.284	34.376	21.401	3.261	0.152	0.437
	58	34.600	27.673	1.466	0.053	34.604	20.954	-0.672	-0.032	0.021
	59	34.844	27.766	7.710	0.278	34.854	18.676	3.261	0.175	0.452
	60	35.080	26.553	0.989	0.037	35.090	19.435	-0.245	-0.013	0.025

WA19_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	5.226	34.035	9.762	0.287	5.236	33.764	7.367	0.218	0.505
	2	5.560	37.092	-0.675	-0.018	5.564	28.886	-0.668	-0.023	-0.041
	3	6.476	33.387	6.541	0.196	6.484	33.111	4.273	0.129	0.325
	4	6.810	36.999	0.826	0.022	6.812	26.142	-1.033	-0.040	-0.017
LOCO 4901	5	7.398	35.378	7.909	0.224	7.406	31.935	5.992	0.188	0.411
	6	7.732	38.018	0.737	0.019	7.734	26.621	-0.625	-0.023	-0.004
	7	8.652	37.694	8.217	0.218	8.658	31.194	5.477	0.176	0.394
	8	8.986	36.907	-0.542	-0.015	8.988	28.145	-0.561	-0.020	-0.035
MC EMS-1	9	9.682	29.079	4.731	0.163	9.690	21.917	2.941	0.134	0.297
	10	9.900	28.848	-1.050	-0.036	9.904	19.608	-0.346	-0.018	-0.054
	11	12.048	29.774	5.592	0.188	12.052	22.396	3.178	0.142	0.330
	12	12.266	29.357	-1.072	-0.037	12.268	18.955	-0.410	-0.022	-0.058
FC EMS-1	13	12.808	31.858	7.158	0.225	12.816	22.527	4.746	0.211	0.435
	14	13.026	31.858	0.737	0.023	13.028	20.088	0.234	0.012	0.035
	15	14.122	29.311	6.408	0.219	14.130	25.096	3.478	0.139	0.357
	16	14.342	30.052	0.473	0.016	14.346	24.138	-0.668	-0.028	-0.012
T-5	17	14.808	19.122	4.621	0.242	14.812	22.744	3.328	0.146	0.388
	18	15.108	22.039	-0.432	-0.020	15.112	19.173	-0.496	-0.026	-0.045
	19	17.030	19.168	5.150	0.269	17.038	22.004	3.435	0.156	0.425
	20	17.334	22.410	-0.300	-0.013	17.338	19.086	-0.453	-0.024	-0.037
SC EMS-2	21	17.896	28.616	6.210	0.217	17.908	26.839	3.264	0.122	0.339
	22	18.118	28.616	-0.520	-0.018	18.124	24.966	-0.539	-0.022	-0.040
	23	18.350	30.422	6.474	0.213	18.358	22.178	3.994	0.180	0.393
	24	18.570	30.469	-0.609	-0.020	18.576	21.133	0.127	0.006	-0.014
	25	20.238	28.292	6.871	0.243	20.246	22.265	3.543	0.159	0.402
	26	20.460	28.385	0.671	0.024	20.466	21.699	-0.690	-0.032	-0.008
	27	20.692	28.385	6.320	0.223	20.696	21.656	4.617	0.213	0.436
	28	20.916	28.709	-0.498	-0.017	20.922	20.131	0.385	0.019	0.002
TRIP-MLC	29	21.358	38.342	8.946	0.233	21.370	32.544	3.758	0.115	0.349
	30	21.590	40.102	1.598	0.040	21.592	31.804	-1.248	-0.039	0.001
	31	21.818	37.787	9.718	0.257	21.828	30.062	4.639	0.154	0.411
	32	22.050	36.443	-0.653	-0.018	22.052	30.236	-0.647	-0.021	-0.039
	33	23.454	38.064	12.895	0.339	23.462	28.407	4.703	0.166	0.504
	34	23.686	36.027	-0.873	-0.024	23.690	32.065	-0.668	-0.021	-0.045
	35	23.916	38.620	9.894	0.256	23.924	31.238	5.348	0.171	0.427
	36	24.150	39.037	-0.785	-0.020	24.154	30.497	-0.582	-0.019	-0.039
LCC EMS-1	37	24.602	26.949	6.320	0.235	24.610	24.966	3.586	0.144	0.378
	38	24.830	29.265	-1.028	-0.035	24.834	21.612	-0.346	-0.016	-0.051
	39	25.066	28.524	5.923	0.208	25.072	21.264	4.359	0.205	0.413
	40	25.294	28.431	-1.293	-0.045	25.296	19.042	0.471	0.025	-0.021
	41	27.010	28.060	8.173	0.291	27.014	19.913	4.359	0.219	0.510
	42	27.236	28.616	-0.829	-0.029	27.244	20.218	0.062	0.003	-0.026
	43	27.474	29.542	5.790	0.196	27.486	20.480	3.693	0.180	0.376
	44	27.706	29.404	-1.491	-0.051	27.712	19.826	0.471	0.024	-0.027
MLC EMS-	45	28.176	43.252	4.091	0.095	28.184	31.238	1.051	0.034	0.128
	46	28.414	44.549	-1.050	-0.024	28.418	30.236	-1.227	-0.041	-0.064
	47	28.648	40.149	7.489	0.187	28.658	27.884	3.500	0.126	0.312
	48	28.886	39.963	-1.182	-0.030	28.892	26.011	-0.539	-0.021	-0.050
	49	30.622	37.231	6.011	0.161	30.630	30.541	3.092	0.101	0.263
	50	30.862	38.620	-0.653	-0.017	30.868	28.058	-1.055	-0.038	-0.055
	51	31.100	39.593	6.033	0.152	31.104	28.668	3.156	0.110	0.262
	52	31.340	40.658	-1.204	-0.030	31.344	27.535	-0.819	-0.030	-0.059
SC EMS-1	53	31.816	27.134	5.239	0.193	31.822	25.793	2.103	0.082	0.275
	54	32.044	26.115	-1.028	-0.039	32.052	25.445	-0.969	-0.038	-0.077
	55	32.292	29.959	5.371	0.179	32.298	21.481	3.156	0.147	0.326
	56	32.524	30.191	-1.050	-0.035	32.532	22.352	-0.496	-0.022	-0.057
	57	34.300	27.968	5.283	0.189	34.308	21.699	2.769	0.128	0.317
	58	34.528	28.987	-0.520	-0.018	34.538	22.178	-1.033	-0.047	-0.065
	59	34.778	28.663	5.150	0.180	34.784	20.305	3.006	0.148	0.328
	60	35.012	26.949	-1.116	-0.041	35.020	21.481	0.127	0.006	-0.036



WA19_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	5.168	34.348	11.702	0.341	5.170	31.493	9.208	0.292	0.633
	2	5.498	37.217	3.108	0.084	5.498	26.405	-0.614	-0.023	0.060
	3	6.414	32.937	7.771	0.236	6.418	30.998	7.087	0.229	0.465
	4	6.748	36.794	2.414	0.066	6.748	25.370	-0.636	-0.025	0.041
LOCO 4901	5	7.338	34.442	9.082	0.264	7.340	30.953	8.147	0.263	0.527
	6	7.670	37.734	2.588	0.069	7.672	24.875	-0.551	-0.022	0.046
	7	8.588	35.994	9.216	0.256	8.594	29.512	7.829	0.265	0.521
	8	8.922	36.841	2.819	0.077	8.924	25.640	-0.572	-0.022	0.054
MC EMS-1	9	9.618	29.738	6.499	0.219	9.624	20.867	4.201	0.201	0.420
	10	9.834	30.209	1.354	0.045	9.838	19.336	0.446	0.023	0.068
	11	11.986	28.798	7.155	0.248	11.990	20.732	4.392	0.212	0.460
	12	12.204	31.479	1.219	0.039	12.206	19.877	0.574	0.029	0.068
FC EMS-1	13	12.744	33.360	8.619	0.258	12.750	21.678	5.941	0.274	0.532
	14	12.964	32.796	2.549	0.078	12.964	19.787	0.383	0.019	0.097
	15	14.060	29.456	7.752	0.263	14.066	23.479	4.795	0.204	0.467
	16	14.280	30.726	2.684	0.087	14.280	22.848	-0.211	-0.009	0.078
T-5	17	14.746	19.203	5.497	0.286	14.748	22.668	4.647	0.205	0.491
	18	15.046	22.213	1.528	0.069	15.044	17.625	-0.211	-0.012	0.057
	19	16.966	19.297	6.345	0.329	16.972	20.192	4.817	0.239	0.567
	20	17.268	22.307	1.682	0.075	17.270	17.625	-0.126	-0.007	0.068
SC EMS-2	21	17.834	28.233	7.540	0.267	17.838	23.749	4.562	0.192	0.459
	22	18.054	28.233	1.528	0.054	18.054	23.704	0.828	0.035	0.089
	23	18.284	29.974	7.521	0.251	18.288	20.147	5.220	0.259	0.510
	24	18.508	30.961	1.412	0.046	18.508	19.742	0.637	0.032	0.078
	25	20.172	28.892	7.752	0.268	20.178	21.993	5.474	0.249	0.517
	26	20.396	28.327	1.528	0.054	20.396	21.408	0.765	0.036	0.090
	27	20.628	27.810	6.981	0.251	20.632	19.922	5.474	0.275	0.526
	28	20.850	29.456	2.029	0.069	20.852	18.121	0.637	0.035	0.104
TRIP-MLC	29	21.294	38.252	9.525	0.249	21.302	30.413	6.090	0.200	0.449
	30	21.526	39.475	2.491	0.063	21.528	30.908	-0.805	-0.026	0.037
	31	21.754	38.487	10.585	0.275	21.756	26.315	5.856	0.223	0.498
	32	21.984	35.994	1.663	0.046	21.986	28.251	0.722	0.026	0.072
	33	23.388	38.769	12.550	0.324	23.392	26.135	6.726	0.257	0.581
	34	23.622	35.524	1.489	0.042	23.622	29.332	0.722	0.025	0.067
	35	23.854	39.663	10.739	0.271	23.858	28.972	5.856	0.202	0.473
	36	24.086	38.675	1.643	0.042	24.086	28.386	0.637	0.022	0.065
LCC EMS-1	37	24.538	26.446	7.540	0.285	24.546	22.218	4.562	0.205	0.490
	38	24.764	28.092	0.911	0.032	24.766	20.867	0.680	0.033	0.065
	39	25.000	28.421	7.501	0.264	25.004	18.841	5.389	0.286	0.550
	40	25.228	29.315	0.776	0.026	25.232	18.121	0.998	0.055	0.082
	41	26.942	29.503	9.139	0.310	26.950	19.967	5.750	0.288	0.598
	42	27.172	29.174	1.354	0.046	27.172	19.517	0.319	0.016	0.063
	43	27.410	29.691	7.289	0.246	27.416	18.886	3.989	0.211	0.457
	44	27.640	30.021	0.641	0.021	27.640	18.256	0.892	0.049	0.070
MLC EMS-	45	28.110	44.037	4.052	0.092	28.114	30.413	1.146	0.038	0.130
	46	28.346	43.708	-0.014	-0.000	28.346	29.017	-0.275	-0.009	-0.010
	47	28.582	39.098	6.750	0.173	28.588	24.559	4.414	0.180	0.352
	48	28.820	39.381	1.027	0.026	28.820	24.424	0.637	0.026	0.052
	49	30.554	36.041	7.135	0.198	30.560	27.576	4.286	0.155	0.353
	50	30.794	36.370	1.354	0.037	30.798	26.405	-0.466	-0.018	0.020
	51	31.034	39.051	6.287	0.161	31.038	26.495	4.138	0.156	0.317
	52	31.272	39.569	0.950	0.024	31.274	25.235	0.277	0.011	0.035
SC EMS-1	53	31.748	27.528	8.118	0.295	31.752	22.668	3.438	0.152	0.447
	54	31.982	25.552	0.584	0.023	31.986	24.379	0.383	0.016	0.039
	55	32.226	30.679	7.135	0.233	32.230	20.912	4.392	0.210	0.443
	56	32.460	30.491	0.892	0.029	32.462	20.597	0.977	0.047	0.077
	57	34.228	28.562	6.634	0.232	34.234	21.588	3.353	0.155	0.388
	58	34.468	29.033	1.277	0.044	34.466	20.147	0.234	0.012	0.056
	59	34.712	28.421	6.095	0.214	34.714	19.201	3.395	0.177	0.391
	60	34.948	28.327	0.892	0.031	34.946	19.111	0.743	0.039	0.070

WA19_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	5.098	35.977	10.704	0.298	5.108	32.325	6.824	0.211	0.509
	2	5.434	38.515	2.590	0.067	5.438	26.595	-0.624	-0.023	0.044
	3	6.348	35.273	8.843	0.251	6.354	31.056	4.957	0.160	0.410
	4	6.684	39.220	2.610	0.067	6.686	25.546	-0.662	-0.026	0.041
LOCO 49	5	7.272	35.179	9.802	0.279	7.276	31.843	6.728	0.211	0.490
	6	7.606	39.455	2.610	0.066	7.608	24.452	-0.624	-0.026	0.041
	7	8.524	37.998	9.054	0.238	8.530	29.700	5.381	0.181	0.419
	8	8.858	39.408	3.089	0.078	8.860	25.721	-0.682	-0.027	0.052
MC EMS	9	9.556	28.741	5.870	0.204	9.560	21.303	3.706	0.174	0.378
	10	9.772	28.929	0.500	0.017	9.774	18.854	0.261	0.014	0.031
	11	11.920	28.177	6.426	0.228	11.924	21.391	4.014	0.188	0.416
	12	12.138	28.694	0.404	0.014	12.140	19.466	0.300	0.015	0.029
FC EMS-	13	12.680	32.970	8.172	0.248	12.684	20.647	4.341	0.210	0.458
	14	12.898	32.124	2.053	0.064	12.900	19.117	0.069	0.004	0.068
	15	13.994	29.728	7.251	0.244	14.002	24.102	3.995	0.166	0.410
	16	14.212	30.574	1.747	0.057	14.214	22.484	0.030	0.001	0.058
T-5	17	14.680	20.471	5.698	0.278	14.688	22.965	3.610	0.157	0.436
	18	14.980	23.901	1.209	0.051	14.980	17.367	0.030	0.002	0.052
	19	16.900	20.612	5.889	0.286	16.906	20.822	3.783	0.182	0.467
	20	17.204	23.337	1.401	0.060	17.204	17.936	0.030	0.002	0.062
SC EMS-	21	17.768	29.117	6.273	0.215	17.776	24.234	4.053	0.167	0.383
	22	17.988	27.707	0.730	0.026	17.994	23.971	0.492	0.021	0.047
	23	18.220	29.681	6.637	0.224	18.226	20.122	3.629	0.180	0.404
	24	18.440	31.137	1.190	0.038	18.446	19.466	0.377	0.019	0.058
	25	20.108	29.399	6.542	0.223	20.116	21.872	4.033	0.184	0.407
	26	20.332	29.446	0.960	0.033	20.330	22.134	0.454	0.021	0.053
	27	20.564	28.459	5.985	0.210	20.568	21.522	4.168	0.194	0.404
	28	20.784	30.104	1.420	0.047	20.786	18.242	0.300	0.016	0.064
	TRIP-ML	29	21.228	39.361	8.268	0.210	21.232	30.750	3.995	0.130
30		21.458	40.113	1.766	0.044	21.462	31.931	-0.701	-0.022	0.022
31		21.686	39.032	9.514	0.244	21.692	28.476	4.380	0.154	0.398
32		21.918	37.622	1.133	0.030	21.920	29.482	0.338	0.011	0.042
33		23.320	39.925	10.704	0.268	23.330	27.033	4.784	0.177	0.445
34		23.554	36.259	0.538	0.015	23.558	30.269	0.492	0.016	0.031
35		23.784	39.408	9.265	0.235	23.790	30.706	4.457	0.145	0.380
36		24.018	40.207	1.881	0.047	24.022	28.476	-0.027	-0.001	0.046
LCC EMS		37	24.470	27.237	6.062	0.223	24.478	23.752	3.668	0.154
	38	24.696	26.579	0.193	0.007	24.700	21.959	0.377	0.017	0.024
	39	24.932	28.412	6.580	0.232	24.940	19.379	3.398	0.175	0.407
	40	25.158	28.694	0.481	0.017	25.162	17.979	0.454	0.025	0.042
	41	26.872	28.741	7.558	0.263	26.882	21.085	4.245	0.201	0.464
	42	27.102	30.010	0.653	0.022	27.110	19.685	0.069	0.004	0.025
	43	27.342	30.527	6.177	0.202	27.350	19.117	2.840	0.149	0.351
	44	27.570	30.433	0.577	0.019	27.578	18.111	0.184	0.010	0.029
	MLC EM	45	28.040	44.483	3.722	0.084	28.046	31.231	0.954	0.031
46		28.278	44.812	0.366	0.008	28.282	30.007	-0.181	-0.006	0.002
47		28.510	40.488	6.350	0.157	28.516	26.683	3.148	0.118	0.275
48		28.748	41.428	1.593	0.038	28.752	24.715	-0.162	-0.007	0.032
49		30.484	37.199	6.254	0.168	30.490	27.426	3.437	0.125	0.293
50		30.722	37.763	1.555	0.041	30.730	26.158	-0.239	-0.009	0.032
51		30.964	39.878	6.100	0.153	30.966	26.901	3.071	0.114	0.267
52		31.202	41.381	1.344	0.032	31.206	25.327	-0.162	-0.006	0.026
SC EMS-		53	31.678	28.929	7.174	0.248	31.682	22.747	3.013	0.132
	54	31.912	26.344	0.346	0.013	31.914	24.627	0.223	0.009	0.022
	55	32.154	30.668	6.542	0.213	32.160	20.166	3.244	0.161	0.374
	56	32.392	30.621	0.346	0.011	32.396	20.254	0.512	0.025	0.037
	57	34.162	29.775	5.832	0.196	34.166	21.303	2.936	0.138	0.334
	58	34.394	30.151	0.615	0.020	34.404	21.041	0.146	0.007	0.027
	59	34.642	28.788	5.794	0.201	34.648	19.160	2.936	0.153	0.355
	60	34.876	28.459	0.270	0.009	34.882	19.335	0.473	0.024	0.034

WA19_RN001		CRIB #5								
	TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM	
LOCO 49	1	5.038	38.430	10.880	0.283	5.044	32.175	7.534	0.234	0.517
	2	5.370	42.580	3.279	0.077	5.372	25.242	-1.127	-0.045	0.032
	3	6.286	37.379	8.793	0.235	6.292	30.752	5.363	0.174	0.410
	4	6.618	42.632	2.742	0.064	6.622	25.242	-0.976	-0.039	0.026
LOCO 49	5	7.208	38.220	9.688	0.253	7.214	31.686	7.018	0.221	0.475
	6	7.542	44.313	3.159	0.071	7.544	23.687	-1.019	-0.043	0.028
	7	8.460	40.741	9.330	0.229	8.466	29.775	6.245	0.210	0.439
	8	8.794	43.525	3.487	0.080	8.798	24.709	-1.105	-0.045	0.035
MC EMS	9	9.490	32.809	7.094	0.216	9.498	20.887	3.558	0.170	0.387
	10	9.708	33.124	1.520	0.046	9.710	19.020	-0.546	-0.029	0.017
	11	11.856	31.548	7.571	0.240	11.862	22.487	4.418	0.196	0.436
	12	12.074	33.755	1.669	0.049	12.076	19.465	-0.589	-0.030	0.019
FC EMS-	13	12.616	36.801	9.002	0.245	12.622	21.242	5.213	0.245	0.490
	14	12.834	35.436	2.444	0.069	12.836	19.376	-0.138	-0.007	0.062
	15	13.930	32.914	8.346	0.254	13.938	24.175	4.633	0.192	0.445
	16	14.148	34.017	2.593	0.076	14.152	22.220	-0.546	-0.025	0.052
T-5	17	14.614	21.883	6.140	0.281	14.622	22.220	4.031	0.181	0.462
	18	14.916	26.033	1.758	0.068	14.916	16.354	-0.546	-0.033	0.034
	19	16.836	23.196	6.707	0.289	16.844	19.820	4.353	0.220	0.509
	20	17.138	25.928	1.758	0.068	17.142	17.154	-0.331	-0.019	0.048
SC EMS-	21	17.702	31.654	7.601	0.240	17.710	24.486	4.267	0.174	0.414
	22	17.924	31.181	1.490	0.048	17.928	24.753	-0.224	-0.009	0.039
	23	18.154	32.599	7.213	0.221	18.160	21.153	4.482	0.212	0.433
	24	18.374	33.702	1.430	0.042	18.378	19.909	0.184	0.009	0.052
	25	20.042	31.308	7.869	0.251	20.050	20.487	4.332	0.211	0.463
	26	20.264	31.781	1.997	0.063	20.266	20.176	-0.374	-0.019	0.044
	27	20.496	30.467	7.213	0.237	20.502	20.665	4.547	0.220	0.457
	28	20.720	32.306	1.669	0.052	20.722	18.132	0.055	0.003	0.055
TRIP-ML	29	21.162	42.654	9.032	0.212	21.170	30.264	4.053	0.134	0.346
	30	21.394	42.497	2.623	0.062	21.396	30.975	-1.363	-0.044	0.018
	31	21.620	41.971	10.880	0.259	21.628	27.819	4.418	0.159	0.418
	32	21.852	41.394	1.579	0.038	21.856	28.842	-0.589	-0.020	0.018
	33	23.256	42.444	12.013	0.283	23.262	26.042	5.428	0.208	0.491
	34	23.488	41.078	1.192	0.029	23.492	28.930	-0.632	-0.022	0.007
	35	23.718	42.497	10.105	0.238	23.724	31.197	5.127	0.164	0.402
	36	23.950	42.917	1.400	0.033	23.954	28.975	-0.804	-0.028	0.005
LCC EMS	37	24.404	30.205	7.124	0.236	24.412	22.887	3.881	0.170	0.405
	38	24.632	30.100	0.745	0.025	24.634	22.798	-0.245	-0.011	0.014
	39	24.866	30.888	7.035	0.228	24.872	19.731	3.988	0.202	0.430
	40	25.094	31.360	0.804	0.026	25.098	17.776	0.184	0.010	0.036
	41	26.808	30.310	8.644	0.285	26.814	19.909	4.590	0.231	0.516
	42	27.036	30.835	1.400	0.045	27.040	18.798	-0.245	-0.013	0.032
	43	27.274	32.621	7.035	0.216	27.282	19.420	3.086	0.159	0.375
	44	27.504	33.146	0.625	0.019	27.508	18.620	-0.159	-0.009	0.010
MLC EM	45	27.972	47.645	5.127	0.108	27.978	29.375	-0.675	-0.023	0.085
	46	28.210	48.590	1.788	0.037	28.214	28.264	-1.341	-0.047	-0.011
	47	28.444	43.337	7.422	0.171	28.450	25.464	3.623	0.142	0.314
	48	28.682	45.386	1.430	0.032	28.686	23.953	-0.546	-0.023	0.009
	49	30.416	42.024	7.988	0.190	30.422	27.686	3.902	0.141	0.331
	50	30.656	42.287	1.669	0.039	30.660	27.020	-0.718	-0.027	0.013
	51	30.894	43.705	6.766	0.155	30.898	26.842	3.558	0.133	0.287
	52	31.134	45.806	1.490	0.033	31.138	25.464	-0.654	-0.026	0.007
SC EMS-	53	31.608	31.150	8.555	0.275	31.616	22.531	3.666	0.163	0.437
	54	31.842	30.152	0.953	0.032	31.846	23.998	-0.589	-0.025	0.007
	55	32.086	33.304	8.108	0.243	32.094	20.087	3.773	0.188	0.431
	56	32.320	34.460	1.490	0.043	32.324	19.909	-0.224	-0.011	0.032
	57	34.090	31.571	7.631	0.242	34.096	20.487	3.408	0.166	0.408
	58	34.326	31.728	1.639	0.052	34.330	20.176	-0.525	-0.026	0.026
	59	34.570	32.096	7.273	0.227	34.578	18.487	3.021	0.163	0.390
	60	34.806	30.888	0.774	0.025	34.810	19.109	0.012	0.001	0.026

WA22_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	5.026	29.621	8.215	0.277	5.030	39.148	9.747	0.249	0.526
	2	5.222	29.061	1.121	0.039	5.222	33.876	0.000	0.000	0.039
	3	5.762	27.009	7.220	0.267	5.766	37.897	5.921	0.156	0.424
	4	5.958	28.222	-0.622	-0.022	5.960	34.055	-0.064	-0.002	-0.024
LOCO 4901	5	6.306	27.708	8.444	0.305	6.308	37.540	9.961	0.265	0.570
	6	6.502	30.228	0.540	0.018	6.502	32.625	0.128	0.004	0.022
	7	7.042	30.694	8.319	0.271	7.046	36.869	7.738	0.210	0.481
	8	7.238	29.481	-0.041	-0.001	7.240	34.770	0.086	0.002	0.001
MC EMS-1	9	7.648	23.136	5.788	0.250	7.652	25.656	3.826	0.149	0.399
	10	7.776	23.369	-0.746	-0.032	7.778	22.797	0.278	0.012	-0.020
	11	9.038	22.296	6.141	0.275	9.042	29.632	4.061	0.137	0.412
	12	9.166	22.763	-0.809	-0.036	9.168	27.041	0.321	0.012	-0.024
FC EMS-1	13	9.484	27.895	8.361	0.300	9.486	26.683	6.370	0.239	0.538
	14	9.612	27.009	0.955	0.035	9.612	24.852	0.556	0.022	0.058
	15	10.252	22.763	7.012	0.308	10.256	28.426	4.895	0.172	0.480
	16	10.380	22.110	0.996	0.045	10.382	28.247	0.107	0.004	0.049
T-5	17	10.652	16.138	3.983	0.247	10.656	24.762	3.655	0.148	0.394
	18	10.828	17.584	0.125	0.007	10.828	23.065	0.363	0.016	0.023
	19	11.942	16.138	4.523	0.280	11.946	23.333	3.805	0.163	0.443
	20	12.118	16.791	0.125	0.007	12.120	22.663	0.428	0.019	0.026
SC EMS-2	21	12.444	23.369	6.162	0.264	12.448	28.113	2.886	0.103	0.366
	22	12.572	21.597	0.208	0.010	12.576	30.034	0.321	0.011	0.020
	23	12.706	24.349	5.788	0.238	12.708	28.247	5.087	0.180	0.418
	24	12.834	22.996	-0.705	-0.031	12.834	27.532	1.389	0.050	0.020
	25	13.792	22.996	6.058	0.263	13.796	26.818	3.377	0.126	0.389
	26	13.920	23.323	-0.020	-0.001	13.920	28.426	0.705	0.025	0.024
	27	14.052	24.349	5.892	0.242	14.056	24.673	5.087	0.206	0.448
	28	14.182	24.303	0.291	0.012	14.182	23.378	0.641	0.027	0.039
TRIP-MLC	29	14.440	30.974	8.651	0.279	14.442	37.763	4.553	0.121	0.400
	30	14.572	30.554	0.644	0.021	14.574	39.371	0.492	0.012	0.034
	31	14.702	31.721	9.273	0.292	14.706	35.574	6.947	0.195	0.488
	32	14.834	30.834	-0.643	-0.021	14.836	37.450	0.257	0.007	-0.014
	33	15.632	30.508	9.211	0.302	15.636	34.546	4.489	0.130	0.432
	34	15.764	28.362	-1.763	-0.062	15.766	38.656	0.021	0.001	-0.062
	35	15.894	31.674	9.211	0.291	15.898	37.405	7.503	0.201	0.491
	36	16.026	30.648	-0.871	-0.028	16.026	36.825	-0.150	-0.004	-0.032
LCC EMS-1	37	16.288	21.737	5.519	0.254	16.292	28.560	2.864	0.100	0.354
	38	16.418	21.457	-1.037	-0.048	16.418	28.202	0.406	0.014	-0.034
	39	16.550	24.256	5.913	0.244	16.554	24.896	3.933	0.158	0.402
	40	16.680	23.696	-0.684	-0.029	16.680	23.824	0.620	0.026	-0.003
	41	17.642	22.390	7.012	0.313	17.644	25.969	4.339	0.167	0.480
	42	17.770	22.856	-0.829	-0.036	17.770	28.024	0.705	0.025	-0.011
	43	17.902	24.909	5.602	0.225	17.906	24.316	4.296	0.177	0.402
	44	18.030	23.649	-1.203	-0.051	18.032	22.752	0.470	0.021	-0.030
MLC EMS-	45	18.290	32.141	2.988	0.093	18.294	40.086	-1.176	-0.029	0.064
	46	18.424	33.680	-1.991	-0.059	18.426	39.907	0.107	0.003	-0.056
	47	18.554	29.948	4.315	0.144	18.556	35.887	2.950	0.082	0.226
	48	18.686	32.001	-1.472	-0.046	18.688	34.368	0.278	0.008	-0.038
	49	19.644	27.942	3.693	0.132	19.648	36.557	-0.748	-0.020	0.112
	50	19.778	27.802	-1.244	-0.045	19.778	36.869	-0.171	-0.005	-0.049
	51	19.906	29.388	3.423	0.116	19.910	36.691	2.608	0.071	0.188
	52	20.040	30.881	-1.493	-0.048	20.042	36.914	0.150	0.004	-0.044
SC EMS-1	53	20.302	23.136	6.888	0.298	20.304	27.041	3.270	0.121	0.419
	54	20.430	23.603	0.000	0.000	20.430	27.979	-0.214	-0.008	-0.008
	55	20.564	23.649	5.560	0.235	20.568	29.498	4.959	0.168	0.403
	56	20.694	23.276	-0.663	-0.029	20.696	26.147	0.235	0.009	-0.020
	57	21.664	23.603	6.203	0.263	21.668	25.433	3.356	0.132	0.395
	58	21.794	23.369	-0.622	-0.027	21.794	27.711	0.321	0.012	-0.015
	59	21.926	23.136	5.809	0.251	21.930	24.584	4.446	0.181	0.432
	60	22.056	22.156	-0.435	-0.020	22.056	23.735	0.449	0.019	-0.001

WA22_RN001		CRIB #2								
	TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM	
LOCO 4900	1	4.988	30.703	6.466	0.211	4.992	40.693	8.463	0.208	0.419
	2	5.184	30.888	-0.970	-0.031	5.186	31.982	-0.669	-0.021	-0.052
	3	5.724	28.851	4.944	0.171	5.728	40.171	5.498	0.137	0.308
	4	5.920	30.611	-2.029	-0.066	5.924	33.638	0.427	0.013	-0.054
LOCO 4901	5	6.268	29.314	5.893	0.201	6.272	37.688	7.625	0.202	0.403
	6	6.464	32.093	-1.323	-0.041	6.466	32.287	0.255	0.008	-0.033
	7	7.004	31.676	5.871	0.185	7.008	37.949	6.550	0.173	0.358
	8	7.202	31.213	-1.786	-0.057	7.204	33.550	0.298	0.009	-0.048
MC EMS-1	9	7.610	24.358	3.598	0.148	7.614	29.892	3.349	0.112	0.260
	10	7.738	25.331	-1.874	-0.074	7.740	25.798	0.578	0.022	-0.052
	11	9.000	20.514	3.090	0.151	9.006	30.632	3.779	0.123	0.274
	12	9.128	21.301	-1.940	-0.091	9.130	27.453	1.115	0.041	-0.050
FC EMS-1	13	9.446	29.128	5.760	0.198	9.450	29.369	5.498	0.187	0.385
	14	9.574	27.368	-0.903	-0.033	9.576	25.144	0.706	0.028	-0.005
	15	10.214	24.312	5.473	0.225	10.220	29.326	4.166	0.142	0.367
	16	10.342	23.524	-0.197	-0.008	10.346	28.846	0.126	0.004	-0.004
T-5	17	10.614	15.790	2.826	0.179	10.618	26.407	2.876	0.109	0.288
	18	10.790	18.661	-1.301	-0.070	10.792	23.315	0.406	0.017	-0.052
	19	11.906	17.550	3.774	0.215	11.910	24.839	3.091	0.124	0.340
	20	12.082	18.244	-1.168	-0.064	12.084	23.402	0.427	0.018	-0.046
SC EMS-2	21	12.408	23.154	4.238	0.183	12.412	30.545	2.919	0.096	0.279
	22	12.536	23.246	-0.992	-0.043	12.536	31.198	0.169	0.005	-0.037
	23	12.668	24.497	3.774	0.154	12.672	28.977	4.080	0.141	0.295
	24	12.796	24.451	-1.676	-0.069	12.798	28.019	1.158	0.041	-0.027
	25	13.754	24.173	4.436	0.184	13.758	29.413	3.177	0.108	0.292
	26	13.882	23.710	-1.124	-0.047	13.884	28.759	0.578	0.020	-0.027
	27	14.016	25.562	4.083	0.160	14.018	26.233	4.617	0.176	0.336
	28	14.142	25.284	-1.014	-0.040	14.144	23.620	0.878	0.037	-0.003
TRIP-MLC	29	14.402	30.981	6.422	0.207	14.404	39.735	3.779	0.095	0.302
	30	14.534	30.703	-1.234	-0.040	14.536	40.301	0.642	0.016	-0.024
	31	14.664	33.297	7.525	0.226	14.668	36.817	5.519	0.150	0.376
	32	14.796	30.564	-1.742	-0.057	14.798	37.819	0.792	0.021	-0.036
	33	15.594	31.954	7.525	0.236	15.600	35.772	4.037	0.113	0.348
	34	15.728	30.472	-2.338	-0.077	15.728	40.650	1.050	0.026	-0.051
	35	15.858	32.232	7.415	0.230	15.862	39.561	6.164	0.156	0.386
	36	15.990	31.629	-1.786	-0.056	15.992	39.082	1.029	0.026	-0.030
LCC EMS-1	37	16.252	22.227	3.510	0.158	16.256	30.589	3.048	0.100	0.258
	38	16.380	21.996	-1.587	-0.072	16.380	28.672	0.449	0.016	-0.057
	39	16.512	24.219	3.951	0.163	16.516	26.277	3.607	0.137	0.300
	40	16.640	25.377	-1.852	-0.073	16.642	24.404	0.943	0.039	-0.034
	41	17.602	23.849	5.451	0.229	17.608	27.366	3.972	0.145	0.374
	42	17.730	24.312	-1.786	-0.073	17.736	28.150	0.964	0.034	-0.039
	43	17.866	25.377	3.620	0.143	17.868	25.580	3.435	0.134	0.277
	44	17.994	24.080	-2.051	-0.085	17.994	23.576	1.050	0.045	-0.041
MLC EMS-	45	18.254	33.945	0.862	0.025	18.258	42.261	-1.378	-0.033	-0.007
	46	18.386	34.779	-2.271	-0.065	18.388	41.303	0.234	0.006	-0.060
	47	18.516	31.120	2.120	0.068	18.520	37.035	2.232	0.060	0.128
	48	18.648	32.046	-2.382	-0.074	18.650	34.726	0.427	0.012	-0.062
	49	19.608	29.731	1.568	0.053	19.610	38.559	-1.678	-0.044	0.009
	50	19.740	29.128	-1.962	-0.067	19.740	38.037	0.320	0.008	-0.059
	51	19.870	31.120	2.009	0.065	19.874	39.387	2.425	0.062	0.126
	52	20.004	30.611	-2.117	-0.069	20.006	36.861	-0.003	-0.000	-0.069
SC EMS-1	53	20.264	22.783	4.944	0.217	20.268	28.629	3.113	0.109	0.326
	54	20.392	23.571	-1.389	-0.059	20.396	29.326	0.169	0.006	-0.053
	55	20.526	24.126	3.708	0.154	20.530	28.498	3.521	0.124	0.277
	56	20.656	24.682	-1.830	-0.074	20.656	28.019	0.620	0.022	-0.052
	57	21.626	25.238	4.569	0.181	21.630	27.758	3.220	0.116	0.297
	58	21.754	24.497	-1.433	-0.058	21.756	28.367	0.556	0.020	-0.039
	59	21.888	23.849	3.951	0.166	21.892	25.623	3.285	0.128	0.294
	60	22.018	22.922	-1.543	-0.067	22.020	24.360	0.964	0.040	-0.028

WA22_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.952	30.723	8.747	0.285	4.954	36.923	9.083	0.246	17.830
	2	5.148	29.500	1.559	0.053	5.148	32.601	-0.378	-0.012	1.180
	3	5.688	28.136	6.434	0.229	5.690	36.203	7.216	0.199	13.651
	4	5.884	29.359	0.017	0.001	5.884	32.421	0.597	0.018	0.615
LOCO 4901	5	6.230	29.218	7.937	0.272	6.232	37.193	9.317	0.251	17.254
	6	6.428	31.429	1.154	0.037	6.428	31.430	-0.060	-0.002	1.094
	7	6.968	31.147	7.417	0.238	6.970	35.032	7.980	0.228	15.397
	8	7.164	29.736	0.326	0.011	7.164	32.466	0.046	0.001	0.371
MC EMS-1	9	7.574	21.504	4.469	0.208	7.578	27.243	4.649	0.171	9.118
	10	7.702	23.292	-0.696	-0.030	7.702	24.857	2.655	0.107	1.960
	11	8.964	19.670	4.257	0.216	8.966	28.098	5.286	0.188	9.543
	12	9.092	20.752	-0.580	-0.028	9.092	26.387	2.655	0.101	2.075
FC EMS-1	13	9.410	26.208	6.396	0.244	9.412	25.802	6.389	0.248	12.785
	14	9.536	27.102	1.694	0.063	9.538	23.866	0.979	0.041	2.673
	15	10.178	26.302	6.935	0.264	10.182	28.053	5.816	0.207	12.752
	16	10.306	26.208	1.328	0.051	10.306	29.539	0.831	0.028	2.158
T-5	17	10.578	16.048	3.717	0.232	10.582	24.361	4.246	0.174	7.964
	18	10.752	18.259	0.037	0.002	10.754	22.155	1.319	0.060	1.355
	19	11.868	16.801	4.623	0.275	11.872	23.956	4.989	0.208	9.612
	20	12.044	18.071	-0.002	-0.000	12.044	21.975	1.467	0.067	1.465
SC EMS-2	21	12.370	23.104	5.066	0.219	12.372	26.928	4.352	0.162	9.419
	22	12.498	22.492	-0.040	-0.002	12.498	28.729	1.807	0.063	1.766
	23	12.630	23.527	4.565	0.194	12.634	25.532	5.795	0.227	10.360
	24	12.758	23.339	-0.310	-0.013	12.760	26.477	2.761	0.104	2.451
	25	13.718	23.856	5.548	0.233	13.720	25.577	4.840	0.189	10.388
	26	13.844	21.551	-0.118	-0.005	13.846	25.937	2.401	0.093	2.283
	27	13.978	23.527	4.469	0.190	13.980	22.920	5.795	0.253	10.264
	28	14.106	24.232	0.306	0.013	14.108	21.795	1.828	0.084	2.134
TRIP-MLC	29	14.364	31.335	6.627	0.211	14.368	36.473	5.668	0.155	12.295
	30	14.496	30.676	0.133	0.004	14.498	38.274	2.210	0.058	2.343
	31	14.626	33.828	8.091	0.239	14.630	33.051	6.665	0.202	14.756
	32	14.760	29.547	0.037	0.001	14.760	34.402	1.870	0.054	1.907
	33	15.558	32.228	8.207	0.255	15.560	32.286	6.622	0.205	14.830
	34	15.690	29.218	-0.850	-0.029	15.690	37.103	2.592	0.070	1.742
	35	15.820	32.040	7.937	0.248	15.824	36.203	7.662	0.212	15.599
	36	15.952	30.112	-0.310	-0.010	15.954	35.798	2.210	0.062	1.900
LCC EMS-1	37	16.214	20.705	4.199	0.203	16.218	27.288	4.416	0.162	8.615
	38	16.344	20.046	-0.426	-0.021	16.344	26.838	1.764	0.066	1.338
	39	16.476	22.868	4.584	0.200	16.478	22.605	4.437	0.196	9.022
	40	16.604	22.398	-0.387	-0.017	16.604	22.425	2.061	0.092	1.674
	41	17.566	23.339	6.434	0.276	17.570	24.451	5.795	0.237	12.229
	42	17.694	22.304	-0.368	-0.017	17.696	26.027	2.104	0.081	1.736
	43	17.826	23.903	4.469	0.187	17.830	21.930	4.310	0.197	8.779
	44	17.956	24.327	-0.696	-0.029	17.956	22.245	2.295	0.103	1.599
MLC EMS-	45	18.216	32.746	1.251	0.038	18.218	39.219	-1.206	-0.031	0.045
	46	18.348	32.417	-0.734	-0.023	18.350	38.679	0.852	0.022	0.118
	47	18.478	30.488	2.792	0.092	18.482	34.222	3.461	0.101	6.254
	48	18.610	29.924	-0.985	-0.033	18.612	32.061	2.061	0.064	1.077
	49	19.570	29.077	2.600	0.089	19.572	34.987	1.998	0.057	4.597
	50	19.702	27.948	-0.888	-0.032	19.702	34.987	1.552	0.044	0.664
	51	19.832	30.253	2.869	0.095	19.836	36.023	3.419	0.095	6.288
	52	19.966	29.171	-0.831	-0.028	19.966	35.077	1.934	0.055	1.103
SC EMS-1	53	20.226	21.881	5.567	0.254	20.230	26.838	5.795	0.216	11.362
	54	20.354	22.022	-0.272	-0.012	20.356	27.063	1.616	0.060	1.344
	55	20.488	23.104	4.469	0.193	20.492	25.757	4.883	0.190	9.352
	56	20.618	23.339	-0.792	-0.034	20.618	26.928	2.464	0.092	1.672
	57	21.588	24.185	5.240	0.217	21.592	24.226	4.713	0.195	9.953
	58	21.716	21.740	-0.464	-0.021	21.718	25.172	1.934	0.077	1.470
	59	21.850	22.586	4.122	0.182	21.854	22.380	3.971	0.177	8.092
	60	21.980	21.504	-0.715	-0.033	21.980	23.101	2.570	0.111	1.855

WA22_RN002		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	7.938	29.934	10.436	0.349	7.942	38.450	10.330	0.269	0.617
	2	8.134	29.701	0.602	0.020	8.136	34.742	0.134	0.004	0.024
	3	8.676	27.088	8.631	0.319	8.680	37.556	7.636	0.203	0.522
	4	8.874	28.488	-0.684	-0.024	8.876	33.268	-0.144	-0.004	-0.028
LOCO 4901	5	9.222	28.907	10.207	0.353	9.226	37.825	10.928	0.289	0.642
	6	9.420	31.240	0.851	0.027	9.422	31.570	0.048	0.002	0.029
	7	9.962	31.707	9.730	0.307	9.966	37.601	8.534	0.227	0.534
	8	10.160	29.934	0.084	0.003	10.162	33.804	0.091	0.003	0.005
MC EMS-1	9	10.570	22.282	6.183	0.277	10.574	26.790	5.157	0.193	0.470
	10	10.698	24.382	0.229	0.009	10.700	22.278	0.369	0.017	0.026
	11	11.964	21.209	6.784	0.320	11.968	30.364	6.033	0.199	0.519
	12	12.092	23.122	-0.974	-0.042	12.094	27.683	0.583	0.021	-0.021
FC EMS-1	13	12.410	27.601	8.776	0.318	12.414	27.013	7.316	0.271	0.589
	14	12.540	26.761	0.499	0.019	12.540	25.852	0.903	0.035	0.054
	15	13.182	22.609	7.863	0.348	13.186	27.817	5.948	0.214	0.562
	16	13.312	22.422	1.100	0.049	13.314	28.353	0.112	0.004	0.053
T-5	17	13.584	15.564	5.291	0.340	13.590	26.120	5.371	0.206	0.546
	18	13.760	17.197	0.125	0.007	13.762	23.082	0.540	0.023	0.031
	19	14.882	15.844	5.975	0.377	14.886	23.752	5.584	0.235	0.612
	20	15.060	16.637	0.333	0.020	15.060	22.367	0.668	0.030	0.050
SC EMS-2	21	15.388	23.402	6.764	0.289	15.390	28.800	3.939	0.137	0.426
	22	15.516	22.236	0.312	0.014	15.518	30.051	0.540	0.018	0.032
	23	15.648	24.242	5.872	0.242	15.654	28.532	5.584	0.196	0.438
	24	15.778	23.542	-0.829	-0.035	15.780	27.371	1.074	0.039	0.004
	25	16.742	22.702	6.598	0.291	16.746	26.432	3.746	0.142	0.432
	26	16.870	22.516	0.167	0.007	16.874	28.085	0.839	0.030	0.037
	27	17.004	24.429	6.556	0.268	17.008	24.824	5.991	0.241	0.510
	28	17.134	23.962	0.478	0.020	17.136	23.037	0.668	0.029	0.049
TRIP-MLC	29	17.392	30.540	7.946	0.260	17.398	37.691	4.858	0.129	0.389
	30	17.526	30.774	-1.140	-0.037	17.526	39.075	0.497	0.013	-0.024
	31	17.656	32.080	9.938	0.310	17.660	35.367	8.149	0.230	0.540
	32	17.790	30.914	-0.642	-0.021	17.790	36.618	0.369	0.010	-0.011
	33	18.592	31.147	11.307	0.363	18.596	34.519	7.530	0.218	0.581
	34	18.726	29.001	-0.912	-0.031	18.728	38.093	0.454	0.012	-0.020
	35	18.858	30.540	10.207	0.334	18.860	38.316	9.795	0.256	0.590
	36	18.990	30.914	-0.725	-0.023	18.992	36.976	0.006	0.000	-0.023
LCC EMS-1	37	19.250	21.396	6.328	0.296	19.254	28.398	4.174	0.147	0.443
	38	19.380	21.489	-0.684	-0.032	19.382	28.085	0.219	0.008	-0.024
	39	19.514	24.895	6.577	0.264	19.518	25.137	5.542	0.220	0.485
	40	19.644	24.475	-0.663	-0.027	19.644	24.288	0.583	0.024	-0.003
	41	20.612	22.749	8.237	0.362	20.616	26.209	6.033	0.230	0.592
	42	20.742	23.029	-0.684	-0.030	20.744	28.085	0.925	0.033	0.003
	43	20.876	25.408	6.058	0.238	20.878	24.020	5.221	0.217	0.456
	44	21.006	24.289	-1.099	-0.045	21.006	22.456	0.818	0.036	-0.009
MLC EMS-	45	21.266	31.613	2.801	0.089	21.272	40.237	-0.785	-0.020	0.069
	46	21.400	34.039	-2.260	-0.066	21.402	40.639	0.112	0.003	-0.064
	47	21.532	29.794	4.005	0.134	21.534	34.742	3.725	0.107	0.242
	48	21.666	32.127	-1.659	-0.052	21.668	34.876	0.390	0.011	-0.040
	49	22.630	27.321	3.424	0.125	22.634	36.038	-0.828	-0.023	0.102
	50	22.766	28.208	-1.597	-0.057	22.766	37.199	-0.144	-0.004	-0.060
	51	22.896	28.907	3.320	0.115	22.900	36.618	3.383	0.092	0.207
	52	23.030	30.867	-1.368	-0.044	23.032	36.440	0.048	0.001	-0.043
SC EMS-1	53	23.292	23.122	8.921	0.386	23.296	27.371	5.798	0.212	0.598
	54	23.422	24.242	0.478	0.020	23.426	27.147	0.134	0.005	0.025
	55	23.558	23.542	6.805	0.289	23.562	28.666	7.359	0.257	0.546
	56	23.688	23.449	-1.036	-0.044	23.690	27.549	0.583	0.021	-0.023
	57	24.664	24.382	7.531	0.309	24.670	26.209	4.494	0.171	0.480
	58	24.796	22.329	-0.559	-0.025	24.796	27.683	0.604	0.022	-0.003
	59	24.930	23.449	6.536	0.279	24.934	24.467	5.520	0.226	0.504
	60	25.062	22.329	-0.497	-0.022	25.062	23.484	0.668	0.028	0.006

WA22_RN002		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	7.902	30.786	9.416	0.306	7.904	39.190	9.928	0.253	0.559
	2	8.096	30.693	-1.264	-0.041	8.098	34.225	0.174	0.005	-0.036
	3	8.640	30.925	6.856	0.222	8.644	37.883	6.147	0.162	0.384
	4	8.836	29.906	-2.146	-0.072	8.838	32.352	0.432	0.013	-0.058
LOCO 4901	5	9.186	30.461	8.974	0.295	9.190	36.882	9.713	0.263	0.558
	6	9.382	31.017	-1.573	-0.051	9.382	31.481	0.475	0.015	-0.036
	7	9.926	32.221	7.364	0.229	9.928	36.794	7.543	0.205	0.434
	8	10.120	30.461	-1.926	-0.063	10.124	32.787	0.367	0.011	-0.052
MC EMS-1	9	10.532	24.116	4.208	0.175	10.536	30.043	4.149	0.138	0.313
	10	10.660	25.969	-1.661	-0.064	10.664	25.862	0.690	0.027	-0.037
	11	11.926	20.411	4.517	0.221	11.932	30.697	5.782	0.188	0.410
	12	12.054	21.662	-1.926	-0.089	12.056	28.345	1.227	0.043	-0.046
FC EMS-1	13	12.374	28.840	6.371	0.221	12.376	28.998	5.975	0.206	0.427
	14	12.502	26.988	-0.249	-0.009	12.502	25.993	0.797	0.031	0.021
	15	13.144	24.811	6.459	0.260	13.150	28.954	5.073	0.175	0.436
	16	13.274	24.440	0.126	0.005	13.276	29.085	0.153	0.005	0.010
T-5	17	13.546	16.057	4.032	0.251	13.552	27.256	3.784	0.139	0.390
	18	13.724	17.956	-1.330	-0.074	13.726	23.423	0.604	0.026	-0.048
	19	14.844	17.586	5.444	0.310	14.850	25.470	4.836	0.190	0.499
	20	15.022	17.262	-1.330	-0.077	15.024	22.987	0.733	0.032	-0.045
SC EMS-2	21	15.348	24.163	5.091	0.211	15.354	30.522	3.203	0.105	0.316
	22	15.478	22.819	-1.021	-0.045	15.480	31.219	0.432	0.014	-0.031
	23	15.612	24.718	3.855	0.156	15.616	29.085	4.213	0.145	0.301
	24	15.740	24.765	-1.617	-0.065	15.742	27.779	1.055	0.038	-0.027
	25	16.704	24.487	4.826	0.197	16.710	28.911	3.526	0.122	0.319
	26	16.834	24.672	-1.264	-0.051	16.836	29.695	0.819	0.028	-0.024
	27	16.968	25.876	4.738	0.183	16.972	26.341	5.244	0.199	0.382
	28	17.096	25.876	-1.131	-0.044	17.098	24.381	0.776	0.032	-0.012
TRIP-MLC	29	17.354	31.897	5.819	0.182	17.358	38.972	3.246	0.083	0.266
	30	17.488	32.036	-1.771	-0.055	17.490	39.713	0.518	0.013	-0.042
	31	17.618	33.889	7.871	0.232	17.624	36.533	5.782	0.158	0.391
	32	17.752	31.758	-1.617	-0.051	17.754	37.143	0.389	0.010	-0.040
	33	18.554	32.592	10.298	0.316	18.560	35.662	6.684	0.187	0.503
	34	18.688	31.063	-2.058	-0.066	18.690	39.190	1.227	0.031	-0.035
	35	18.820	32.036	8.776	0.274	18.822	38.754	7.629	0.197	0.471
	36	18.952	31.573	-1.551	-0.049	18.954	38.014	0.453	0.012	-0.037
LCC EMS-1	37	19.212	22.125	4.385	0.198	19.218	30.348	3.268	0.108	0.306
	38	19.342	22.912	-1.529	-0.067	19.344	29.477	0.453	0.015	-0.051
	39	19.476	24.487	4.473	0.183	19.480	26.036	3.805	0.146	0.329
	40	19.606	24.672	-1.617	-0.066	19.606	24.120	0.711	0.029	-0.036
	41	20.574	24.116	6.966	0.289	20.578	27.343	5.717	0.209	0.498
	42	20.704	24.255	-1.705	-0.070	20.706	28.301	1.033	0.037	-0.034
	43	20.838	25.876	3.966	0.153	20.844	25.296	3.955	0.156	0.310
	44	20.968	24.996	-1.882	-0.075	20.970	23.510	1.119	0.048	-0.028
MLC EMS-	45	21.230	34.398	0.590	0.017	21.234	43.153	0.776	0.018	0.035
	46	21.364	35.278	-2.323	-0.066	21.364	41.324	0.110	0.003	-0.063
	47	21.494	31.388	2.311	0.074	21.498	37.317	2.580	0.069	0.143
	48	21.628	33.287	-2.389	-0.072	21.630	34.530	0.281	0.008	-0.064
	49	22.594	29.998	1.737	0.058	22.598	37.840	-1.437	-0.038	0.020
	50	22.728	29.720	-2.080	-0.070	22.728	38.885	0.196	0.005	-0.065
	51	22.858	30.183	1.980	0.066	22.862	38.929	2.366	0.061	0.126
	52	22.992	31.851	-2.301	-0.072	22.994	36.969	-0.127	-0.003	-0.076
SC EMS-1	53	23.254	23.144	7.253	0.313	23.260	29.259	5.674	0.194	0.507
	54	23.384	24.209	-1.198	-0.049	23.386	29.303	0.389	0.013	-0.036
	55	23.520	23.653	5.113	0.216	23.524	28.563	5.631	0.197	0.413
	56	23.650	24.996	-2.102	-0.084	23.652	28.388	0.905	0.032	-0.052
	57	24.626	24.857	5.157	0.207	24.632	27.691	4.213	0.152	0.360
	58	24.758	24.116	-1.595	-0.066	24.760	27.909	0.947	0.034	-0.032
	59	24.892	24.487	4.760	0.194	24.896	25.688	4.514	0.176	0.370
	60	25.022	23.190	-1.551	-0.067	25.024	24.686	1.184	0.048	-0.019



WA22_RN002		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	7.862	28.188	10.046	0.356	7.866	36.222	9.386	0.259	0.616
	2	8.060	31.951	1.779	0.056	8.062	34.286	-0.394	-0.011	0.044
	3	8.600	24.896	6.346	0.255	8.604	37.708	8.601	0.228	0.483
	4	8.800	30.211	0.219	0.007	8.800	32.034	-0.182	-0.006	0.002
LOCO 4901	5	9.148	28.141	8.929	0.317	9.150	37.032	9.917	0.268	0.585
	6	9.346	31.904	1.394	0.044	9.346	31.584	-0.203	-0.006	0.037
	7	9.888	31.339	8.177	0.261	9.890	36.492	8.283	0.227	0.488
	8	10.086	30.258	0.296	0.010	10.086	32.485	0.115	0.004	0.013
MC EMS-1	9	10.496	21.039	5.075	0.241	10.498	27.262	5.525	0.203	0.444
	10	10.624	23.249	-0.398	-0.017	10.624	24.740	2.385	0.096	0.079
	11	11.890	20.333	5.980	0.294	11.892	28.387	7.095	0.250	0.544
	12	12.018	20.992	-0.148	-0.007	12.018	26.766	1.813	0.068	0.061
FC EMS-1	13	12.336	26.683	7.368	0.276	12.340	25.866	6.777	0.262	0.538
	14	12.464	26.918	2.030	0.075	12.466	24.065	1.091	0.045	0.121
	15	13.108	26.448	7.715	0.292	13.112	28.342	6.098	0.215	0.507
	16	13.236	26.777	2.435	0.091	13.238	29.198	-0.033	-0.001	0.090
T-5	17	13.510	15.818	4.805	0.304	13.514	25.281	5.504	0.218	0.521
	18	13.686	18.029	0.180	0.010	13.686	22.759	1.325	0.058	0.068
	19	14.806	16.100	6.327	0.393	14.810	24.065	6.607	0.275	0.668
	20	14.984	17.323	0.180	0.010	14.984	22.354	1.346	0.060	0.071
SC EMS-2	21	15.312	22.873	5.865	0.256	15.316	27.622	5.059	0.183	0.440
	22	15.440	22.026	0.064	0.003	15.442	29.423	2.216	0.075	0.078
	23	15.574	23.955	4.863	0.203	15.578	26.181	5.653	0.216	0.419
	24	15.704	23.485	-0.032	-0.001	15.704	26.091	2.491	0.095	0.094
	25	16.668	24.237	5.807	0.240	16.670	26.136	5.059	0.194	0.433
	26	16.796	21.744	0.122	0.006	16.798	25.866	2.279	0.088	0.094
	27	16.930	23.720	5.344	0.225	16.934	22.984	5.843	0.254	0.480
	28	17.058	24.284	0.411	0.017	17.058	21.454	1.770	0.083	0.099
TRIP-MLC	29	17.318	32.045	6.732	0.210	17.318	35.907	4.337	0.121	0.331
	30	17.450	30.446	-0.321	-0.011	17.452	38.113	2.598	0.068	0.058
	31	17.582	34.067	8.967	0.263	17.584	34.061	6.947	0.204	0.467
	32	17.714	30.211	0.238	0.008	17.714	33.385	1.516	0.045	0.053
	33	18.518	32.468	10.721	0.330	18.522	31.584	8.092	0.256	0.586
	34	18.650	29.599	-0.225	-0.008	18.652	35.952	1.855	0.052	0.044
	35	18.782	31.433	9.160	0.291	18.786	36.627	8.601	0.235	0.526
	36	18.916	30.634	0.219	0.007	18.916	36.087	1.388	0.038	0.046
LCC EMS-1	37	19.176	21.556	5.556	0.258	19.178	27.307	4.571	0.167	0.425
	38	19.304	20.286	-0.302	-0.015	19.304	27.037	1.813	0.067	0.052
	39	19.438	23.343	5.383	0.231	19.442	22.849	4.655	0.204	0.434
	40	19.568	23.814	-0.128	-0.005	19.568	23.119	1.897	0.082	0.077
	41	20.538	23.202	7.946	0.342	20.540	24.605	6.734	0.274	0.616
	42	20.666	22.026	-0.051	-0.002	20.666	25.010	1.728	0.069	0.067
	43	20.800	23.767	4.920	0.207	20.804	22.264	3.701	0.166	0.373
	44	20.930	24.613	-0.283	-0.011	20.930	21.994	1.749	0.080	0.068
MLC EMS-	45	21.192	33.221	0.681	0.021	21.194	39.148	-1.179	-0.030	-0.010
	46	21.326	32.515	-0.552	-0.017	21.326	37.753	0.858	0.023	0.006
	47	21.456	29.881	3.494	0.117	21.458	34.286	4.019	0.117	0.234
	48	21.590	31.104	-0.706	-0.023	21.590	32.845	1.622	0.049	0.027
	49	22.556	29.552	2.839	0.096	22.558	35.231	2.619	0.074	0.170
	50	22.690	27.812	-0.861	-0.031	22.690	35.186	1.664	0.047	0.016
	51	22.820	29.834	3.205	0.107	22.824	35.366	3.764	0.106	0.214
	52	22.954	31.339	-0.629	-0.020	22.954	35.141	1.622	0.046	0.026
SC EMS-1	53	23.218	22.215	7.927	0.357	23.220	27.262	7.116	0.261	0.618
	54	23.346	22.497	0.296	0.013	23.346	25.326	0.900	0.036	0.049
	55	23.482	24.002	6.462	0.269	23.484	25.686	6.013	0.234	0.503
	56	23.612	24.096	-0.456	-0.019	23.612	26.947	1.579	0.059	0.040
	57	24.588	23.908	6.250	0.261	24.592	24.605	5.356	0.218	0.479
	58	24.720	21.791	-0.244	-0.011	24.720	26.226	-1.982	-0.076	-0.064
	59	24.854	22.544	5.730	0.254	24.856	22.579	4.995	0.221	0.475
	60	24.984	21.791	-0.398	-0.018	24.986	22.759	2.301	0.101	0.083

WA22_RN002		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	7.822	31.077	8.006	0.258	7.830	33.873	6.484	0.191	0.449
	2	8.022	32.393	0.507	0.016	8.024	35.797	0.903	0.025	0.041
	3	8.566	28.305	5.436	0.192	8.566	37.765	3.713	0.098	0.290
	4	8.762	31.453	-0.011	-0.000	8.764	33.698	0.518	0.015	0.015
LOCO 49	5	9.112	30.372	6.836	0.225	9.114	35.622	5.772	0.162	0.387
	6	9.306	34.038	0.641	0.019	9.308	32.823	0.672	0.020	0.039
	7	9.848	31.641	5.858	0.185	9.852	34.573	4.521	0.131	0.316
	8	10.048	31.829	0.142	0.004	10.048	32.561	0.903	0.028	0.032
MC EMS	9	10.458	21.914	3.518	0.161	10.460	26.919	3.770	0.140	0.301
	10	10.586	22.055	-1.315	-0.060	10.586	25.388	1.865	0.073	0.014
	11	11.852	22.619	5.225	0.231	11.856	28.450	4.136	0.145	0.376
	12	11.980	22.102	-1.181	-0.053	11.982	29.456	1.807	0.061	0.008
FC EMS-	13	12.296	27.365	6.242	0.228	12.302	25.607	4.386	0.171	0.399
	14	12.426	26.425	0.622	0.024	12.426	24.601	1.423	0.058	0.081
	15	13.070	26.566	6.759	0.254	13.074	27.400	3.597	0.131	0.386
	16	13.200	24.499	0.852	0.035	13.200	27.225	0.422	0.015	0.050
T-5	17	13.474	17.497	4.726	0.270	13.476	25.607	3.617	0.141	0.411
	18	13.646	20.411	0.334	0.016	13.650	22.852	0.672	0.029	0.046
	19	14.768	19.048	6.107	0.321	14.774	22.895	3.770	0.165	0.485
	20	14.946	19.471	0.468	0.024	14.948	21.452	0.557	0.026	0.050
SC EMS-	21	15.274	25.579	5.494	0.215	15.276	27.837	3.270	0.117	0.332
	22	15.402	23.559	0.046	0.002	15.404	29.018	1.095	0.038	0.040
	23	15.536	25.110	4.515	0.180	15.540	26.044	3.463	0.133	0.313
	24	15.664	25.251	-0.260	-0.010	15.666	27.313	1.942	0.071	0.061
	25	16.628	25.673	5.167	0.201	16.634	25.694	3.617	0.141	0.342
	26	16.760	22.431	-0.011	-0.001	16.760	26.744	1.288	0.048	0.048
	27	16.892	25.439	4.803	0.189	16.896	23.945	3.790	0.158	0.347
	28	17.022	26.096	0.046	0.002	17.022	22.895	1.403	0.061	0.063
TRIP-ML	29	17.278	32.393	6.222	0.192	17.280	35.622	3.463	0.097	0.289
	30	17.412	30.748	0.027	0.001	17.416	37.547	1.634	0.044	0.044
	31	17.542	35.776	7.891	0.221	17.546	33.698	4.001	0.119	0.339
	32	17.676	32.346	-0.184	-0.006	17.678	35.141	1.519	0.043	0.038
	33	18.478	33.850	9.560	0.282	18.484	31.905	5.445	0.171	0.453
	34	18.612	30.419	-0.913	-0.030	18.614	35.797	1.827	0.051	0.021
	35	18.742	32.816	7.929	0.242	18.748	35.666	6.003	0.168	0.410
	36	18.878	31.594	-0.260	-0.008	18.878	36.803	1.750	0.048	0.039
LCC EMS	37	19.136	23.089	4.746	0.206	19.142	27.138	3.212	0.118	0.324
	38	19.268	21.350	-0.260	-0.012	19.268	27.794	0.980	0.035	0.023
	39	19.400	25.110	4.630	0.184	19.404	23.551	2.904	0.123	0.308
	40	19.528	24.687	-1.066	-0.043	19.530	23.989	1.519	0.063	0.020
	41	20.498	25.298	6.855	0.271	20.504	24.951	4.483	0.180	0.451
	42	20.626	23.418	-0.913	-0.039	20.630	26.875	1.538	0.057	0.018
	43	20.762	25.861	4.535	0.175	20.764	23.464	3.078	0.131	0.307
	44	20.890	25.626	-1.354	-0.053	20.894	23.726	1.827	0.077	0.024
MLC EM	45	21.154	34.790	1.216	0.035	21.156	40.783	1.076	0.026	0.061
	46	21.286	34.320	-0.260	-0.008	21.288	38.421	0.441	0.011	0.004
	47	21.418	31.359	3.173	0.101	21.422	35.841	3.174	0.089	0.190
	48	21.552	33.145	-1.181	-0.036	21.552	32.823	0.749	0.023	-0.013
	49	22.518	30.889	2.636	0.085	22.520	35.841	2.404	0.067	0.152
	50	22.652	29.010	-0.932	-0.032	22.654	34.616	0.980	0.028	-0.004
	51	22.780	31.077	3.058	0.098	22.786	34.354	2.962	0.086	0.185
	52	22.916	31.265	-1.104	-0.035	22.916	35.141	0.845	0.024	-0.011
SC EMS-	53	23.178	24.217	7.373	0.304	23.182	28.275	4.733	0.167	0.472
	54	23.308	23.324	0.123	0.005	23.312	26.394	0.634	0.024	0.029
	55	23.442	25.814	5.647	0.219	23.448	27.269	4.637	0.170	0.389
	56	23.572	24.875	-1.392	-0.056	23.574	28.012	1.692	0.060	0.004
	57	24.550	25.532	5.398	0.211	24.556	23.945	3.540	0.148	0.359
	58	24.680	24.734	-0.491	-0.020	24.680	26.788	1.095	0.041	0.021
	59	24.816	24.875	5.244	0.211	24.820	23.770	3.366	0.142	0.352
	60	24.946	23.700	-1.047	-0.044	24.946	24.426	1.673	0.068	0.024

WA22_RN002		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	7.786	33.907	10.380	0.306	7.792	36.432	8.571	0.235	0.541
	2	7.984	36.901	1.348	0.037	7.986	34.032	-0.175	-0.005	0.031
	3	8.526	28.707	7.459	0.260	8.530	36.432	5.928	0.163	0.423
	4	8.724	34.275	0.245	0.007	8.726	32.655	-0.068	-0.002	0.005
LOCO 49	5	9.072	31.963	9.427	0.295	9.078	34.788	7.776	0.224	0.518
	6	9.270	37.374	0.841	0.023	9.270	31.188	0.104	0.003	0.026
	7	9.812	34.117	8.741	0.256	9.816	35.188	6.551	0.186	0.442
	8	10.008	35.063	0.454	0.013	10.010	32.610	0.018	0.001	0.013
MC EMS	9	10.420	26.448	5.283	0.200	10.424	29.721	4.617	0.155	0.355
	10	10.548	25.817	-0.172	-0.007	10.550	28.255	1.823	0.065	0.058
	11	11.814	26.553	6.267	0.236	11.818	27.811	4.617	0.166	0.402
	12	11.942	23.138	-0.411	-0.018	11.942	29.099	2.425	0.083	0.066
FC EMS-	13	12.260	33.855	7.310	0.216	12.264	27.100	5.348	0.197	0.413
	14	12.388	30.282	0.871	0.029	12.390	26.655	1.694	0.064	0.092
	15	13.032	28.812	7.280	0.253	13.036	26.833	4.316	0.161	0.414
	16	13.160	27.288	1.080	0.040	13.162	26.477	0.383	0.014	0.054
T-5	17	13.434	18.516	5.253	0.284	13.438	23.811	4.187	0.176	0.460
	18	13.610	21.668	0.662	0.031	13.612	21.856	0.426	0.020	0.050
	19	14.732	19.146	6.237	0.326	14.736	22.567	4.918	0.218	0.544
	20	14.908	21.615	0.752	0.035	14.910	21.678	0.405	0.019	0.053
SC EMS-	21	15.236	28.759	6.147	0.214	15.240	29.233	4.037	0.138	0.352
	22	15.364	25.923	0.603	0.023	15.366	29.499	0.684	0.023	0.046
	23	15.498	29.074	5.641	0.194	15.502	26.077	3.951	0.152	0.346
	24	15.626	27.919	0.156	0.006	15.628	27.588	1.974	0.072	0.077
	25	16.592	28.549	5.700	0.200	16.596	25.722	4.509	0.175	0.375
	26	16.720	26.448	0.722	0.027	16.720	27.188	1.093	0.040	0.067
	27	16.854	29.967	5.611	0.187	16.858	24.522	4.015	0.164	0.351
	28	16.982	29.179	0.603	0.021	16.984	23.278	0.921	0.040	0.060
TRIP-ML	29	17.240	35.483	6.565	0.185	17.244	37.187	3.757	0.101	0.286
	30	17.374	34.222	0.841	0.025	17.376	38.476	1.974	0.051	0.076
	31	17.504	37.794	9.218	0.244	17.510	33.766	5.219	0.155	0.398
	32	17.638	35.903	0.156	0.004	17.640	35.276	2.060	0.058	0.063
	33	18.442	36.166	10.440	0.289	18.446	32.166	6.852	0.213	0.502
	34	18.574	34.222	0.126	0.004	18.576	36.032	0.555	0.015	0.019
	35	18.706	38.109	9.874	0.259	18.710	37.054	6.787	0.183	0.442
	36	18.838	35.956	-0.023	-0.001	18.840	38.254	0.620	0.016	0.016
LCC EMS	37	19.098	26.921	5.969	0.222	19.102	27.277	3.779	0.139	0.360
	38	19.228	24.872	0.126	0.005	19.230	28.922	0.276	0.010	0.015
	39	19.362	27.603	5.283	0.191	19.368	23.767	3.177	0.134	0.325
	40	19.492	28.129	-0.202	-0.007	19.494	24.611	0.835	0.034	0.027
	41	20.460	28.339	7.757	0.274	20.464	24.878	5.648	0.227	0.501
	42	20.590	27.131	0.066	0.002	20.590	26.077	0.921	0.035	0.038
	43	20.724	29.547	5.700	0.193	20.728	23.144	3.413	0.147	0.340
	44	20.854	27.971	-0.441	-0.016	20.854	24.122	1.866	0.077	0.062
MLC EM	45	21.116	39.423	2.511	0.064	21.118	39.454	-1.035	-0.026	0.037
	46	21.248	39.108	-0.083	-0.002	21.250	39.632	-0.089	-0.002	-0.004
	47	21.380	35.063	4.091	0.117	21.384	36.165	4.015	0.111	0.228
	48	21.512	35.903	-0.232	-0.006	21.514	32.521	0.083	0.003	-0.004
	49	22.478	33.960	3.763	0.111	22.482	34.077	2.812	0.083	0.193
	50	22.612	33.592	-0.053	-0.002	22.614	35.099	0.383	0.011	0.009
	51	22.744	36.481	4.299	0.118	22.746	35.676	3.757	0.105	0.223
	52	22.878	36.639	-0.321	-0.009	22.880	35.721	0.254	0.007	-0.002
SC EMS-	53	23.140	26.133	8.115	0.311	23.144	29.055	5.820	0.200	0.511
	54	23.270	26.973	0.573	0.021	23.272	27.366	0.083	0.003	0.024
	55	23.406	28.129	6.654	0.237	23.410	27.188	4.982	0.183	0.420
	56	23.536	27.446	-0.083	-0.003	23.536	26.566	0.749	0.028	0.025
	57	24.512	29.389	6.773	0.230	24.516	24.878	4.746	0.191	0.421
	58	24.642	27.709	0.364	0.013	24.644	26.744	0.319	0.012	0.025
	59	24.776	27.919	6.446	0.231	24.780	22.878	3.499	0.153	0.384
	60	24.906	26.395	0.036	0.001	24.908	24.522	0.964	0.039	0.041

WA24_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	7.136	22.514	8.447	0.375	7.138	44.237	13.368	0.302	0.677
	2	7.284	22.047	-0.744	-0.034	7.286	41.423	2.873	0.069	0.036
	3	7.696	19.341	6.061	0.313	7.698	45.041	8.601	0.191	0.504
	4	7.846	21.441	-2.154	-0.100	7.846	40.306	2.916	0.072	-0.028
LOCO 4901	5	8.110	21.581	7.886	0.365	8.112	43.880	12.256	0.279	0.645
	6	8.260	22.700	-1.158	-0.051	8.260	40.350	3.001	0.074	0.023
	7	8.670	23.027	6.953	0.302	8.672	43.254	10.739	0.248	0.550
	8	8.820	21.441	-1.905	-0.089	8.822	40.797	2.787	0.068	-0.021
MC EMS-1	9	9.130	16.589	4.028	0.243	9.134	35.704	5.416	0.152	0.395
	10	9.228	14.862	-1.698	-0.114	9.230	32.666	2.680	0.082	-0.032
	11	10.188	16.542	4.733	0.286	10.192	35.883	8.152	0.227	0.513
	12	10.286	14.769	-1.241	-0.084	10.286	29.539	2.338	0.079	-0.005
FC EMS-1	13	10.528	19.341	5.604	0.290	10.530	35.481	8.559	0.241	0.531
	14	10.626	21.441	-1.200	-0.056	10.626	32.309	3.129	0.097	0.041
	15	11.114	17.288	5.895	0.341	11.116	35.928	6.507	0.181	0.522
	16	11.212	19.948	0.439	0.022	11.212	32.934	0.992	0.030	0.052
T-5	17	11.420	10.197	3.696	0.362	11.422	27.797	5.844	0.210	0.573
	18	11.554	10.850	-1.200	-0.111	11.554	30.165	3.022	0.100	-0.010
	19	12.408	11.503	4.360	0.379	12.410	26.501	5.801	0.219	0.598
	20	12.540	12.250	-1.055	-0.086	12.542	27.127	2.680	0.099	0.013
SC EMS-2	21	12.790	21.021	5.563	0.265	12.794	31.818	4.711	0.148	0.413
	22	12.890	17.335	-1.449	-0.084	12.890	34.185	2.873	0.084	0.000
	23	12.990	18.362	3.613	0.197	12.994	34.007	5.951	0.175	0.372
	24	13.090	17.288	-2.424	-0.140	13.090	34.498	3.942	0.114	-0.026
	25	13.826	18.968	4.754	0.251	13.828	31.013	3.429	0.111	0.361
	26	13.924	17.475	-1.656	-0.095	13.926	33.113	2.787	0.084	-0.011
	27	14.026	16.822	3.758	0.223	14.028	29.941	6.336	0.212	0.435
	28	14.126	16.355	-1.822	-0.111	14.126	30.969	3.044	0.098	-0.013
TRIP-MLC	29	14.320	24.753	5.604	0.226	14.324	41.333	5.224	0.126	0.353
	30	14.422	24.287	-2.942	-0.121	14.424	45.667	4.027	0.088	-0.033
	31	14.522	24.613	5.895	0.240	14.526	43.165	8.494	0.197	0.436
	32	14.624	23.307	-2.528	-0.108	14.626	43.522	3.364	0.077	-0.031
	33	15.238	23.074	7.596	0.329	15.242	40.887	6.784	0.166	0.495
	34	15.342	22.934	-1.553	-0.068	15.342	45.399	3.108	0.068	0.001
	35	15.442	23.447	7.264	0.310	15.444	44.818	10.717	0.239	0.549
	36	15.544	23.447	-1.636	-0.070	15.546	42.048	2.745	0.065	-0.004
LCC EMS-1	37	15.742	18.128	4.920	0.271	15.744	32.175	5.267	0.164	0.435
	38	15.840	16.542	-1.884	-0.114	15.842	32.443	2.851	0.088	-0.026
	39	15.942	15.842	3.675	0.232	15.946	31.281	6.571	0.210	0.442
	40	16.044	16.869	-1.553	-0.092	16.044	30.299	2.509	0.083	-0.009
	41	16.786	17.102	6.102	0.357	16.790	32.309	7.148	0.221	0.578
	42	16.886	17.802	-0.992	-0.056	16.886	32.130	2.488	0.077	0.022
	43	16.988	16.869	3.240	0.192	16.992	31.237	5.737	0.184	0.376
	44	17.088	15.982	-2.050	-0.128	17.088	30.343	2.937	0.097	-0.032
MLC EMS-	45	17.290	25.686	0.252	0.010	17.292	47.230	-1.466	-0.031	-0.021
	46	17.392	24.940	-3.357	-0.135	17.394	47.364	3.343	0.071	-0.064
	47	17.492	23.447	0.335	0.014	17.496	44.148	-1.039	-0.024	-0.009
	48	17.596	21.627	-4.146	-0.192	17.596	45.309	4.455	0.098	-0.093
	49	18.338	22.840	1.829	0.080	18.340	41.021	-1.167	-0.028	0.052
	50	18.440	22.887	-2.569	-0.112	18.442	45.577	2.381	0.052	-0.060
	51	18.540	22.560	0.937	0.042	18.544	42.897	-0.911	-0.021	0.020
	52	18.644	20.088	-3.938	-0.196	18.646	45.175	3.856	0.085	-0.111
SC EMS-1	53	18.846	18.968	7.077	0.373	18.848	30.924	6.870	0.222	0.595
	54	18.946	17.009	-1.138	-0.067	18.948	31.773	2.232	0.070	0.003
	55	19.050	17.242	4.671	0.271	19.052	33.917	7.639	0.225	0.496
	56	19.150	17.149	-1.988	-0.116	19.150	32.711	2.745	0.084	-0.032
	57	19.902	18.408	4.692	0.255	19.904	30.656	4.048	0.132	0.387
	58	20.002	17.802	-1.407	-0.079	20.002	31.371	2.167	0.069	-0.010
	59	20.106	17.009	4.567	0.269	20.108	30.343	5.780	0.190	0.459
	60	20.206	14.676	-1.822	-0.124	20.206	30.254	3.022	0.100	-0.024

WA24_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	7.106	24.000	8.068	0.336	7.110	45.847	11.487	0.251	0.587
	2	7.256	25.992	-2.037	-0.078	7.258	41.578	2.120	0.051	-0.027
	3	7.668	21.222	5.244	0.247	7.670	46.500	7.770	0.167	0.414
	4	7.816	24.047	-2.633	-0.110	7.818	40.838	2.313	0.057	-0.053
LOCO 4901	5	8.080	22.055	7.274	0.330	8.084	43.538	10.821	0.249	0.578
	6	8.230	24.973	-2.126	-0.085	8.232	40.010	2.055	0.051	-0.034
	7	8.642	26.224	5.862	0.224	8.644	45.281	8.630	0.191	0.414
	8	8.792	24.371	-2.501	-0.103	8.794	40.620	2.077	0.051	-0.051
MC EMS-1	9	9.102	16.081	2.287	0.142	9.106	35.916	4.333	0.121	0.263
	10	9.200	15.895	-2.082	-0.131	9.202	33.085	2.678	0.081	-0.050
	11	10.160	15.525	3.082	0.199	10.164	33.695	6.696	0.199	0.397
	12	10.258	17.887	-1.971	-0.110	10.260	31.779	1.991	0.063	-0.048
FC EMS-1	13	10.500	19.415	3.413	0.176	10.502	37.310	6.481	0.174	0.349
	14	10.598	22.009	-1.552	-0.071	10.600	33.477	2.055	0.061	-0.009
	15	11.086	17.285	3.523	0.204	11.088	38.617	5.837	0.151	0.355
	16	11.184	21.685	-0.736	-0.034	11.186	34.566	1.045	0.030	-0.004
T-5	17	11.390	13.255	3.655	0.276	11.394	28.643	5.171	0.181	0.456
	18	11.524	12.190	-1.751	-0.144	11.526	29.209	2.528	0.087	-0.057
	19	12.378	13.672	4.141	0.303	12.382	28.730	5.450	0.190	0.493
	20	12.512	13.904	-1.707	-0.123	12.514	26.988	2.120	0.079	-0.044
SC EMS-2	21	12.762	20.758	3.523	0.170	12.766	33.651	3.387	0.101	0.270
	22	12.860	18.674	-1.883	-0.101	12.862	33.259	1.991	0.060	-0.041
	23	12.962	19.554	2.155	0.110	12.966	35.742	3.881	0.109	0.219
	24	13.060	18.952	-2.523	-0.133	13.062	34.610	3.151	0.091	-0.042
	25	13.796	20.017	3.082	0.154	13.800	32.519	3.194	0.098	0.252
	26	13.896	18.165	-2.126	-0.117	13.898	33.739	2.485	0.074	-0.043
	27	13.996	17.007	2.331	0.137	14.000	32.040	5.063	0.158	0.295
	28	14.096	17.377	-2.082	-0.120	14.098	31.430	2.936	0.093	-0.026
	TRIP-MLC	29	14.292	25.344	3.479	0.137	14.296	44.279	3.387	0.077
30		14.394	25.251	-2.567	-0.102	14.394	44.192	2.421	0.055	-0.047
31		14.492	25.760	3.832	0.149	14.496	46.892	5.407	0.115	0.264
32		14.596	23.352	-2.435	-0.104	14.598	44.105	2.356	0.053	-0.051
33		15.210	24.047	5.067	0.211	15.214	43.756	5.751	0.131	0.342
34		15.312	22.889	-2.391	-0.104	15.314	47.197	2.506	0.053	-0.051
35		15.412	25.390	5.597	0.220	15.416	45.498	8.393	0.184	0.405
36		15.516	23.445	-2.324	-0.099	15.516	44.192	2.592	0.059	-0.040
LCC EMS-1		37	15.712	18.443	2.993	0.162	15.716	34.435	3.839	0.111
	38	15.812	18.118	-2.148	-0.119	15.814	33.564	2.141	0.064	-0.055
	39	15.914	18.582	2.177	0.117	15.918	33.695	4.204	0.125	0.242
	40	16.014	17.609	-1.993	-0.113	16.016	31.212	2.313	0.074	-0.039
	41	16.756	18.072	4.979	0.276	16.760	33.564	6.395	0.191	0.466
	42	16.856	18.350	-1.927	-0.105	16.860	32.606	2.163	0.066	-0.039
	43	16.960	17.146	1.912	0.112	16.962	32.693	3.881	0.119	0.230
	44	17.058	16.868	-2.236	-0.133	17.060	31.822	2.743	0.086	-0.046
MLC EMS-	45	17.260	26.872	-1.993	-0.074	17.264	49.723	-2.392	-0.048	-0.122
	46	17.362	25.575	-2.986	-0.117	17.364	48.591	2.141	0.044	-0.073
	47	17.462	22.750	-0.802	-0.035	17.466	46.326	1.153	0.025	-0.010
	48	17.566	22.518	-3.383	-0.150	17.568	47.546	3.344	0.070	-0.080
	49	18.308	23.676	0.037	0.002	18.312	44.410	-2.242	-0.050	-0.049
	50	18.412	22.426	-2.655	-0.118	18.412	45.934	1.561	0.034	-0.084
	51	18.512	23.769	-0.140	-0.006	18.514	44.192	1.153	0.026	0.020
	52	18.614	21.592	-3.097	-0.143	18.616	45.411	2.313	0.051	-0.092
SC EMS-1	53	18.816	19.832	5.774	0.291	18.820	33.826	6.094	0.180	0.471
	54	18.918	18.489	-1.729	-0.093	18.920	34.305	1.819	0.053	-0.040
	55	19.020	17.377	2.949	0.170	19.024	36.003	5.751	0.160	0.329
	56	19.120	18.026	-2.413	-0.134	19.122	34.131	2.485	0.073	-0.061
	57	19.872	18.535	2.861	0.154	19.876	32.519	3.495	0.107	0.262
	58	19.974	18.304	-1.905	-0.104	19.976	33.695	1.819	0.054	-0.050
	59	20.076	17.841	3.170	0.178	20.080	32.345	4.784	0.148	0.326
	60	20.176	16.405	-1.993	-0.122	20.178	31.038	2.743	0.088	-0.033

WA24_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	7.078	22.569	9.266	0.411	7.080	42.867	11.668	0.272	0.683
	2	7.228	24.545	-0.253	-0.010	7.228	39.626	2.588	0.065	0.055
	3	7.638	19.324	5.798	0.300	7.640	44.758	9.674	0.216	0.516
	4	7.788	22.475	-1.486	-0.066	7.788	39.671	3.182	0.080	0.014
LOCO 4901	5	8.052	21.535	8.206	0.381	8.054	43.498	11.392	0.262	0.643
	6	8.202	25.862	-0.369	-0.014	8.202	38.680	2.503	0.065	0.050
	7	8.612	23.792	7.108	0.299	8.614	42.237	9.971	0.236	0.535
	8	8.762	23.604	-0.928	-0.039	8.764	39.806	2.673	0.067	0.028
MC EMS-1	9	9.074	15.561	2.888	0.186	9.076	31.836	6.046	0.190	0.376
	10	9.172	14.761	-1.332	-0.090	9.172	31.791	4.689	0.147	0.057
	11	10.130	15.185	4.680	0.308	10.134	30.395	7.956	0.262	0.570
	12	10.230	18.007	-0.908	-0.050	10.230	33.412	3.691	0.110	0.060
FC EMS-1	13	10.470	18.148	4.892	0.270	10.474	34.718	7.956	0.229	0.499
	14	10.570	19.606	0.229	0.012	10.570	29.990	3.225	0.108	0.119
	15	11.056	15.749	4.449	0.282	11.060	34.853	7.616	0.219	0.501
	16	11.156	18.524	0.344	0.019	11.156	31.521	2.525	0.080	0.099
T-5	17	11.360	11.046	3.813	0.345	11.364	28.640	6.959	0.243	0.588
	18	11.496	11.140	-0.985	-0.088	11.496	27.649	3.628	0.131	0.043
	19	12.348	11.516	4.564	0.396	12.352	27.739	7.149	0.258	0.654
	20	12.484	13.586	-0.542	-0.040	12.484	25.893	2.822	0.109	0.069
SC EMS-2	21	12.734	21.393	4.757	0.222	12.736	31.251	5.389	0.172	0.395
	22	12.832	18.806	-0.851	-0.045	12.832	31.656	4.179	0.132	0.087
	23	12.934	19.042	3.138	0.165	12.936	32.512	5.410	0.166	0.331
	24	13.032	17.772	-1.506	-0.085	13.032	32.242	5.261	0.163	0.078
	25	13.768	20.359	4.237	0.208	13.770	30.170	4.858	0.161	0.369
	26	13.866	17.631	-1.140	-0.065	13.866	30.891	4.540	0.147	0.082
	27	13.968	18.289	3.196	0.175	13.970	28.730	5.898	0.205	0.380
	28	14.068	17.160	-1.255	-0.073	14.068	29.945	4.879	0.163	0.090
TRIP-MLC	29	14.262	24.733	4.275	0.173	14.266	43.048	4.264	0.099	0.272
	30	14.364	25.485	-1.120	-0.044	14.366	42.462	4.731	0.111	0.067
	31	14.464	26.567	4.873	0.183	14.466	43.678	6.598	0.151	0.334
	32	14.566	23.792	-1.294	-0.054	14.568	41.111	4.328	0.105	0.051
	33	15.182	24.592	6.992	0.284	15.184	41.066	7.828	0.191	0.475
	34	15.284	22.146	-1.178	-0.053	15.284	42.327	4.243	0.100	0.047
	35	15.384	26.050	6.896	0.265	15.386	43.318	7.701	0.178	0.443
	36	15.486	23.933	-1.178	-0.049	15.486	43.498	4.307	0.099	0.050
LCC EMS-1	37	15.684	18.101	3.736	0.206	15.686	31.926	5.240	0.164	0.371
	38	15.784	17.631	-1.352	-0.077	15.784	30.486	3.967	0.130	0.053
	39	15.886	17.442	3.119	0.179	15.888	30.981	4.604	0.149	0.327
	40	15.986	17.019	-1.217	-0.071	15.986	28.910	4.137	0.143	0.072
	41	16.728	19.606	6.665	0.340	16.730	29.810	7.807	0.262	0.602
	42	16.828	18.101	-0.542	-0.030	16.828	30.801	3.076	0.100	0.070
	43	16.930	17.819	2.849	0.160	16.932	30.035	3.437	0.114	0.274
	44	17.030	16.031	-1.602	-0.100	17.030	29.810	4.476	0.150	0.050
MLC EMS-	45	17.232	25.721	-0.793	-0.031	17.234	46.424	-1.570	-0.034	-0.065
	46	17.334	25.015	-2.431	-0.097	17.334	46.109	4.307	0.093	-0.004
	47	17.434	22.804	-0.041	-0.002	17.436	42.057	-1.124	-0.027	-0.029
	48	17.538	21.723	-3.047	-0.140	17.538	43.408	5.770	0.133	-0.007
	49	18.280	23.228	0.209	0.009	18.282	41.967	-1.634	-0.039	-0.030
	50	18.382	22.240	-2.103	-0.095	18.382	40.886	3.776	0.092	-0.002
	51	18.484	23.087	0.171	0.007	18.484	41.967	2.673	0.064	0.071
	52	18.586	21.911	-2.373	-0.108	18.586	42.012	4.667	0.111	0.003
SC EMS-1	53	18.788	20.500	6.780	0.331	18.790	31.161	7.934	0.255	0.585
	54	18.888	18.242	-0.677	-0.037	18.888	31.656	2.906	0.092	0.055
	55	18.992	17.442	3.948	0.226	18.994	33.502	5.728	0.171	0.397
	56	19.092	18.665	-1.525	-0.082	19.092	33.232	4.095	0.123	0.042
	57	19.842	18.854	3.755	0.199	19.846	28.820	5.155	0.179	0.378
	58	19.944	18.524	-1.120	-0.060	19.944	31.431	3.607	0.115	0.054
	59	20.046	17.442	3.813	0.219	20.050	28.414	5.452	0.192	0.410
	60	20.148	16.643	-1.371	-0.082	20.148	29.810	4.434	0.149	0.066

WA24_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	7.050	26.199	8.735	0.333	7.052	42.926	8.705	0.203	0.536
	2	7.200	27.092	-0.241	-0.009	7.200	40.389	2.566	0.064	0.055
	3	7.612	20.936	5.244	0.250	7.614	44.894	5.395	0.120	0.371
	4	7.760	25.682	-2.063	-0.080	7.762	38.377	3.066	0.080	-0.000
LOCO 49	5	8.024	23.567	7.661	0.325	8.026	43.844	8.782	0.200	0.525
	6	8.174	27.139	-1.143	-0.042	8.174	39.821	2.758	0.069	0.027
	7	8.586	25.682	5.436	0.212	8.588	43.320	6.415	0.148	0.360
	8	8.734	25.682	-1.757	-0.068	8.736	39.821	2.816	0.071	0.002
MC EMS	9	9.046	18.304	2.348	0.128	9.048	34.266	3.932	0.115	0.243
	10	9.142	17.412	-1.987	-0.114	9.144	34.791	3.836	0.110	-0.004
	11	10.102	19.197	4.036	0.210	10.106	33.742	5.183	0.154	0.364
	12	10.200	19.526	-2.121	-0.109	10.202	36.584	4.144	0.113	0.005
FC EMS-	13	10.442	21.312	4.592	0.215	10.444	36.060	5.414	0.150	0.366
	14	10.538	19.855	-1.143	-0.058	10.540	32.342	4.144	0.128	0.071
	15	11.028	17.694	4.208	0.238	11.030	35.841	4.875	0.136	0.374
	16	11.124	18.774	-0.280	-0.015	11.126	33.348	2.604	0.078	0.063
T-5	17	11.334	12.995	3.518	0.271	11.336	28.275	4.375	0.155	0.425
	18	11.468	13.793	-0.970	-0.070	11.468	26.438	2.335	0.088	0.018
	19	12.320	14.404	5.283	0.367	12.324	25.476	4.452	0.175	0.541
	20	12.456	16.237	-0.778	-0.048	12.456	25.344	2.027	0.080	0.032
SC EMS-	21	12.704	22.487	4.477	0.199	12.708	30.899	3.316	0.107	0.306
	22	12.802	21.077	-1.335	-0.063	12.804	32.298	2.777	0.086	0.023
	23	12.904	21.359	2.789	0.131	12.908	32.998	3.451	0.105	0.235
	24	13.002	19.761	-2.121	-0.107	13.004	33.348	4.240	0.127	0.020
	25	13.738	23.003	4.113	0.179	13.742	30.636	3.259	0.106	0.285
	26	13.836	18.868	-1.373	-0.073	13.838	31.292	2.854	0.091	0.018
	27	13.940	20.983	3.307	0.158	13.942	29.499	3.740	0.127	0.284
	28	14.036	17.788	-1.584	-0.089	14.040	30.636	3.605	0.118	0.029
TRIP-ML	29	14.234	27.655	3.652	0.132	14.236	42.357	2.931	0.069	0.201
	30	14.334	25.400	-1.833	-0.072	14.336	44.194	4.317	0.098	0.026
	31	14.434	28.219	4.151	0.147	14.438	45.550	4.548	0.100	0.247
	32	14.536	25.776	-2.198	-0.085	14.540	43.844	3.759	0.086	0.000
	33	15.152	27.327	5.916	0.216	15.156	42.576	5.106	0.120	0.336
	34	15.254	24.084	-1.757	-0.073	15.256	45.156	3.451	0.076	0.003
	35	15.354	28.407	5.935	0.209	15.358	43.888	5.395	0.123	0.332
	36	15.456	25.635	-2.121	-0.083	15.458	45.463	4.125	0.091	0.008
LCC EMS	37	15.654	20.043	3.211	0.160	15.658	31.861	3.374	0.106	0.266
	38	15.754	19.291	-1.776	-0.092	15.756	30.374	2.931	0.097	0.004
	39	15.856	19.056	2.885	0.151	15.860	31.424	3.451	0.110	0.261
	40	15.954	18.304	-1.833	-0.100	15.956	31.249	3.509	0.112	0.012
	41	16.698	21.876	6.088	0.278	16.702	30.112	5.645	0.187	0.466
	42	16.798	20.090	-1.277	-0.064	16.798	31.292	2.854	0.091	0.028
	43	16.900	19.996	2.578	0.129	16.904	30.286	2.874	0.095	0.224
	44	17.000	17.412	-1.967	-0.113	17.002	30.330	3.740	0.123	0.010
MLC EM	45	17.202	27.702	-0.376	-0.014	17.204	46.119	-1.033	-0.022	-0.036
	46	17.304	27.421	-2.543	-0.093	17.306	47.124	3.047	0.065	-0.028
	47	17.404	25.118	0.468	0.019	17.408	44.675	2.065	0.046	0.065
	48	17.508	23.896	-2.984	-0.125	17.510	44.938	3.951	0.088	-0.037
	49	18.248	26.246	1.063	0.041	18.252	44.238	1.680	0.038	0.078
	50	18.352	23.896	-1.680	-0.070	18.354	42.095	2.373	0.056	-0.014
	51	18.452	25.212	1.216	0.048	18.456	44.588	2.758	0.062	0.110
	52	18.554	23.661	-2.159	-0.091	18.558	41.920	2.623	0.063	-0.029
SC EMS-	53	18.758	23.003	6.510	0.283	18.762	30.899	4.875	0.158	0.441
	54	18.856	19.103	-1.277	-0.067	18.860	31.074	2.316	0.075	0.008
	55	18.962	19.949	3.365	0.169	18.964	33.042	4.452	0.135	0.303
	56	19.062	20.184	-2.025	-0.100	19.064	33.785	3.393	0.100	0.000
	57	19.812	22.863	3.787	0.166	19.816	29.630	3.374	0.114	0.279
	58	19.912	19.479	-1.277	-0.066	19.914	31.948	2.142	0.067	0.002
	59	20.016	20.607	3.633	0.176	20.020	28.275	3.162	0.112	0.288
	60	20.118	17.036	-1.737	-0.102	20.118	30.418	3.374	0.111	0.009

WA24_RN001		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	7.022	26.557	9.195	0.346	7.024	42.244	10.236	0.242	0.589
	2	7.170	28.921	0.163	0.006	7.172	40.200	2.671	0.066	0.072
	3	7.580	23.510	6.333	0.269	7.584	42.599	6.239	0.146	0.416
	4	7.730	27.345	-2.043	-0.075	7.732	39.755	3.617	0.091	0.016
LOCO 49	5	7.994	26.662	8.420	0.316	7.998	43.444	9.677	0.223	0.539
	6	8.144	28.186	-0.433	-0.015	8.146	39.222	3.724	0.095	0.080
	7	8.556	27.082	6.721	0.248	8.558	41.977	7.743	0.184	0.433
	8	8.706	26.767	-1.715	-0.064	8.706	39.800	3.552	0.089	0.025
MC EMS	9	9.016	19.255	3.531	0.183	9.020	33.622	4.476	0.133	0.317
	10	9.114	17.995	-0.821	-0.046	9.114	34.867	4.412	0.127	0.081
	11	10.074	20.779	5.260	0.253	10.076	34.422	6.475	0.188	0.441
	12	10.172	17.207	-0.672	-0.039	10.172	33.845	4.390	0.130	0.091
FC EMS-	13	10.414	22.197	5.707	0.257	10.416	35.178	6.969	0.198	0.455
	14	10.510	20.726	0.133	0.006	10.512	35.311	5.078	0.144	0.150
	15	10.998	18.835	5.409	0.287	11.002	37.978	6.797	0.179	0.466
	16	11.096	19.991	0.222	0.011	11.098	36.378	3.208	0.088	0.099
T-5	17	11.304	15.368	4.664	0.303	11.306	27.490	6.389	0.232	0.536
	18	11.438	15.736	-0.106	-0.007	11.438	26.334	2.585	0.098	0.091
	19	12.290	15.683	5.529	0.353	12.294	25.268	5.809	0.230	0.582
	20	12.426	16.997	0.252	0.015	12.426	25.357	2.027	0.080	0.095
SC EMS-	21	12.676	23.878	5.201	0.218	12.678	31.089	4.304	0.138	0.356
	22	12.774	22.933	-0.195	-0.009	12.774	32.734	3.101	0.095	0.086
	23	12.874	21.357	3.263	0.153	12.878	31.312	3.982	0.127	0.280
	24	12.974	20.621	-0.344	-0.017	12.974	34.245	4.605	0.134	0.118
	25	13.710	24.981	4.992	0.200	13.712	28.467	4.476	0.157	0.357
	26	13.808	21.094	-0.374	-0.018	13.810	32.511	3.466	0.107	0.089
	27	13.910	23.773	3.978	0.167	13.914	28.734	4.756	0.166	0.333
	28	14.008	19.676	-0.225	-0.011	14.010	30.512	3.982	0.131	0.119
TRIP-ML	29	14.204	28.553	3.710	0.130	14.208	44.199	-0.810	-0.018	0.112
	30	14.306	26.294	-0.612	-0.023	14.308	44.955	6.260	0.139	0.116
	31	14.406	29.079	4.783	0.165	14.410	42.688	6.217	0.146	0.310
	32	14.508	27.660	-1.984	-0.072	14.510	44.421	4.455	0.100	0.029
	33	15.122	28.080	6.959	0.248	15.126	42.777	7.163	0.167	0.415
	34	15.224	25.664	-0.493	-0.019	15.226	45.177	4.111	0.091	0.072
	35	15.326	29.079	7.168	0.247	15.328	44.110	6.625	0.150	0.397
	36	15.428	27.870	-0.553	-0.020	15.428	46.155	4.476	0.097	0.077
LCC EMS	37	15.624	21.619	3.680	0.170	15.628	31.267	4.154	0.133	0.303
	38	15.724	19.938	-0.851	-0.043	15.726	32.023	3.531	0.110	0.068
	39	15.826	19.781	3.263	0.165	15.830	29.801	3.896	0.131	0.296
	40	15.926	19.150	-0.672	-0.035	15.926	30.023	3.724	0.124	0.089
	41	16.670	23.878	7.258	0.304	16.672	28.601	7.506	0.262	0.566
	42	16.768	21.462	-0.195	-0.009	16.770	32.378	2.929	0.090	0.081
	43	16.872	20.726	3.501	0.169	16.874	30.289	3.123	0.103	0.272
	44	16.970	17.364	-0.553	-0.032	16.972	31.223	4.133	0.132	0.101
MLC EM	45	17.172	30.444	0.520	0.017	17.176	45.488	-1.863	-0.041	-0.024
	46	17.274	31.285	-2.401	-0.077	17.276	48.377	3.273	0.068	-0.009
	47	17.376	26.189	1.236	0.047	17.378	42.155	-0.660	-0.016	0.032
	48	17.478	26.189	-2.461	-0.094	17.480	42.910	3.939	0.092	-0.002
	49	18.220	28.396	1.653	0.058	18.222	41.533	-1.004	-0.024	0.034
	50	18.322	26.189	-0.910	-0.035	18.324	41.622	2.757	0.066	0.031
	51	18.424	28.238	1.862	0.066	18.426	42.955	3.273	0.076	0.142
	52	18.526	26.032	-1.864	-0.072	18.528	42.333	2.929	0.069	-0.002
SC EMS-	53	18.728	24.613	7.019	0.285	18.732	30.378	6.239	0.205	0.491
	54	18.828	21.041	-0.404	-0.019	18.830	32.467	2.671	0.082	0.063
	55	18.932	19.991	4.426	0.221	18.936	32.467	5.293	0.163	0.384
	56	19.032	20.674	-0.940	-0.045	19.034	34.111	3.574	0.105	0.059
	57	19.784	25.296	4.903	0.194	19.786	27.756	4.498	0.162	0.356
	58	19.884	20.148	-0.344	-0.017	19.884	32.556	2.693	0.083	0.066
	59	19.988	23.090	4.843	0.210	19.990	28.023	3.961	0.141	0.351
	60	20.088	18.783	-0.463	-0.025	20.088	31.267	3.810	0.122	0.097



WA24_RN002		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.066	21.556	6.926	0.321	4.068	44.629	13.603	0.305	0.626
	2	4.218	23.235	-0.791	-0.034	4.220	40.876	2.060	0.050	0.016
	3	4.640	19.363	5.578	0.288	4.642	44.182	9.520	0.215	0.504
	4	4.792	24.028	-1.828	-0.076	4.794	38.865	0.714	0.018	-0.058
LOCO 4901	5	5.062	21.229	6.262	0.295	5.066	43.646	12.277	0.281	0.576
	6	5.216	25.475	-1.019	-0.040	5.218	38.374	0.756	0.020	-0.020
	7	5.638	23.655	6.345	0.268	5.640	43.601	11.487	0.263	0.532
	8	5.790	24.168	-1.331	-0.055	5.792	40.027	0.628	0.016	-0.039
MC EMS-1	9	6.110	18.383	4.042	0.220	6.112	34.353	4.796	0.140	0.360
	10	6.210	16.284	-1.538	-0.094	6.210	30.199	2.231	0.074	-0.021
	11	7.192	16.843	4.271	0.254	7.194	33.415	7.489	0.224	0.478
	12	7.292	18.336	-1.331	-0.073	7.292	29.841	0.820	0.027	-0.045
FC EMS-1	13	7.540	19.176	5.225	0.272	7.542	34.621	8.601	0.248	0.521
	14	7.638	21.742	-1.040	-0.048	7.640	30.333	2.509	0.083	0.035
	15	8.138	17.450	5.080	0.291	8.142	35.962	7.126	0.198	0.489
	16	8.238	21.136	0.267	0.013	8.240	33.102	0.735	0.022	0.035
T-5	17	8.452	10.312	3.213	0.312	8.454	27.875	5.737	0.206	0.517
	18	8.588	11.851	-1.289	-0.109	8.588	29.484	2.509	0.085	-0.024
	19	9.460	12.038	3.959	0.329	9.462	27.071	5.245	0.194	0.523
	20	9.596	12.644	-1.061	-0.084	9.598	26.714	2.124	0.080	-0.004
SC EMS-2	21	9.852	19.736	5.432	0.275	9.854	32.656	6.079	0.186	0.461
	22	9.952	18.803	-1.289	-0.069	9.952	33.504	2.317	0.069	0.001
	23	10.056	18.523	4.374	0.236	10.058	34.353	7.703	0.224	0.460
	24	10.156	18.476	-2.036	-0.110	10.158	32.388	3.129	0.097	-0.014
	25	10.908	17.916	4.831	0.270	10.910	32.343	4.647	0.144	0.413
	26	11.008	17.776	-1.372	-0.077	11.008	33.102	2.445	0.074	-0.003
	27	11.112	16.470	4.001	0.243	11.114	30.869	7.425	0.241	0.483
	28	11.212	17.217	-1.310	-0.076	11.212	30.333	2.530	0.083	0.007
TRIP-MLC	29	11.412	24.588	5.329	0.217	11.416	42.663	5.950	0.139	0.356
	30	11.516	25.241	-2.389	-0.095	11.518	44.137	3.621	0.082	-0.013
	31	11.618	23.982	6.241	0.260	11.620	44.137	9.328	0.211	0.472
	32	11.722	25.708	-1.600	-0.062	11.722	41.501	0.521	0.013	-0.050
	33	12.346	24.215	7.652	0.316	12.350	40.161	7.468	0.186	0.502
	34	12.452	25.475	-1.393	-0.055	12.452	43.020	2.552	0.059	0.005
	35	12.552	24.355	7.154	0.294	12.556	43.601	10.738	0.246	0.540
	36	12.656	26.128	-1.227	-0.047	12.658	41.099	0.478	0.012	-0.035
LCC EMS-1	37	12.858	17.497	4.748	0.271	12.860	31.986	5.929	0.185	0.457
	38	12.958	17.030	-1.559	-0.092	12.958	31.226	2.552	0.082	-0.010
	39	13.062	18.570	4.499	0.242	13.066	31.181	7.105	0.228	0.470
	40	13.164	19.736	-1.476	-0.075	13.164	27.429	1.996	0.073	-0.002
	41	13.916	17.030	5.308	0.312	13.920	32.298	6.164	0.191	0.503
	42	14.020	17.170	-1.372	-0.080	14.020	31.896	2.488	0.078	-0.002
	43	14.122	18.430	3.835	0.208	14.124	29.662	5.651	0.191	0.399
	44	14.222	19.036	-1.994	-0.105	14.224	27.473	2.509	0.091	-0.013
MLC EMS-	45	14.426	25.848	0.059	0.002	14.430	46.282	-1.531	-0.033	-0.031
	46	14.530	25.428	-3.218	-0.127	14.532	47.666	3.172	0.067	-0.060
	47	14.632	23.842	-0.024	-0.001	14.636	42.573	-1.125	-0.026	-0.027
	48	14.736	21.182	-3.965	-0.187	14.738	44.495	4.561	0.103	-0.085
	49	15.488	22.675	1.968	0.087	15.490	41.055	-1.103	-0.027	0.060
	50	15.592	23.375	-2.223	-0.095	15.592	44.763	0.521	0.012	-0.083
	51	15.692	22.535	0.723	0.032	15.696	41.903	-0.847	-0.020	0.012
	52	15.798	21.136	-3.882	-0.184	15.798	44.718	3.898	0.087	-0.097
SC EMS-1	53	16.002	18.756	6.677	0.356	16.004	32.343	7.147	0.221	0.577
	54	16.102	15.910	-1.206	-0.076	16.104	32.879	2.317	0.070	-0.005
	55	16.208	16.843	4.748	0.282	16.210	34.041	8.558	0.251	0.533
	56	16.310	17.310	-1.621	-0.094	16.310	32.209	2.573	0.080	-0.014
	57	17.068	17.963	4.955	0.276	17.070	31.673	5.074	0.160	0.436
	58	17.168	17.077	-1.227	-0.072	17.170	32.298	2.146	0.066	-0.005
	59	17.272	15.397	4.333	0.281	17.276	29.707	7.233	0.243	0.525
	60	17.374	16.284	-1.559	-0.096	17.374	30.243	2.659	0.088	-0.008

WA24_RN002		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.036	25.143	6.745	0.268	4.040	44.913	11.204	0.249	0.518
	2	4.190	26.626	-1.684	-0.063	4.190	40.253	1.536	0.038	-0.025
	3	4.610	21.531	4.517	0.210	4.614	45.044	7.874	0.175	0.385
	4	4.764	25.838	-2.346	-0.091	4.764	39.774	1.794	0.045	-0.046
LOCO 4901	5	5.034	23.615	5.510	0.233	5.038	43.476	9.443	0.217	0.451
	6	5.186	27.413	-1.904	-0.069	5.188	38.815	1.515	0.039	-0.030
	7	5.608	25.746	5.267	0.205	5.612	44.565	9.034	0.203	0.407
	8	5.762	26.765	-2.103	-0.079	5.762	38.815	1.493	0.038	-0.040
MC EMS-1	9	6.080	16.575	1.847	0.111	6.084	32.239	4.028	0.125	0.236
	10	6.180	18.011	-2.015	-0.112	6.182	31.847	2.224	0.070	-0.042
	11	7.162	17.038	2.553	0.150	7.166	33.371	5.962	0.179	0.328
	12	7.262	19.725	-1.728	-0.088	7.264	31.280	1.257	0.040	-0.047
FC EMS-1	13	7.510	19.956	3.105	0.156	7.514	36.071	6.499	0.180	0.336
	14	7.610	23.059	-1.000	-0.043	7.612	32.195	1.364	0.042	-0.001
	15	8.110	18.243	3.237	0.177	8.112	39.294	6.435	0.164	0.341
	16	8.210	22.365	-0.955	-0.043	8.212	34.416	0.892	0.026	-0.017
T-5	17	8.420	12.685	2.840	0.224	8.426	29.059	4.931	0.170	0.394
	18	8.558	12.731	-1.242	-0.098	8.560	28.580	2.009	0.070	-0.027
	19	9.430	13.518	3.634	0.269	9.434	28.711	5.167	0.180	0.449
	20	9.568	14.352	-1.485	-0.103	9.570	26.489	1.515	0.057	-0.046
SC EMS-2	21	9.822	19.261	3.480	0.181	9.826	34.286	4.974	0.145	0.326
	22	9.922	18.984	-1.706	-0.090	9.924	33.676	1.794	0.053	-0.037
	23	10.026	18.243	2.421	0.133	10.030	36.463	5.511	0.151	0.284
	24	10.128	18.474	-1.750	-0.095	10.130	34.329	2.632	0.077	-0.018
	25	10.878	19.169	3.215	0.168	10.880	33.284	4.759	0.143	0.311
	26	10.976	17.594	-1.595	-0.091	10.980	33.153	2.095	0.063	-0.027
	27	11.082	16.946	2.421	0.143	11.086	32.935	5.812	0.176	0.319
	28	11.184	17.687	-1.551	-0.088	11.184	31.324	2.482	0.079	-0.008
TRIP-MLC	29	11.382	25.421	3.149	0.124	11.386	45.131	3.556	0.079	0.203
	30	11.486	25.190	-1.551	-0.062	11.488	44.565	2.460	0.055	-0.006
	31	11.588	27.413	5.223	0.191	11.592	45.087	6.413	0.142	0.333
	32	11.692	25.282	-1.882	-0.074	11.694	44.260	1.708	0.039	-0.036
	33	12.316	24.634	5.289	0.215	12.322	41.864	6.220	0.149	0.363
	34	12.422	25.375	-2.015	-0.079	12.422	44.260	2.095	0.047	-0.032
	35	12.522	26.950	5.443	0.202	12.528	45.741	7.982	0.175	0.376
	36	12.628	25.468	-2.015	-0.079	12.630	42.866	2.181	0.051	-0.028
LCC EMS-1	37	12.828	17.363	2.663	0.153	12.832	34.329	4.694	0.137	0.290
	38	12.928	18.057	-1.948	-0.108	12.930	32.587	2.095	0.064	-0.044
	39	13.032	19.215	2.487	0.129	13.036	32.543	5.017	0.154	0.284
	40	13.134	19.771	-1.948	-0.099	13.136	27.883	1.923	0.069	-0.030
	41	13.888	17.640	3.568	0.202	13.890	33.937	5.640	0.166	0.368
	42	13.988	19.261	-1.904	-0.099	13.990	33.502	2.095	0.063	-0.036
	43	14.092	18.891	2.090	0.111	14.096	31.324	3.857	0.123	0.234
	44	14.194	19.771	-2.037	-0.103	14.194	29.146	2.439	0.084	-0.019
MLC EMS-	45	14.398	26.950	-1.816	-0.067	14.400	48.615	-2.095	-0.043	-0.110
	46	14.500	26.394	-2.610	-0.099	14.502	49.356	1.923	0.039	-0.060
	47	14.602	24.264	-0.955	-0.039	14.606	46.394	1.021	0.022	-0.017
	48	14.706	22.689	-2.963	-0.131	14.708	46.612	3.384	0.073	-0.058
	49	15.458	23.986	0.192	0.008	15.460	44.216	-1.773	-0.040	-0.032
	50	15.562	23.059	-2.235	-0.097	15.564	45.653	1.515	0.033	-0.064
	51	15.664	23.384	-0.161	-0.007	15.668	44.303	1.343	0.030	0.023
	52	15.768	22.828	-2.699	-0.118	15.768	44.739	2.396	0.054	-0.065
SC EMS-1	53	15.972	19.354	5.090	0.263	15.976	35.026	6.327	0.181	0.444
	54	16.074	17.918	-1.661	-0.093	16.074	33.284	1.708	0.051	-0.041
	55	16.178	17.872	3.171	0.177	16.182	36.550	6.585	0.180	0.358
	56	16.278	18.659	-2.081	-0.112	16.280	34.373	2.095	0.061	-0.051
	57	17.038	18.474	2.928	0.158	17.040	33.240	4.523	0.136	0.295
	58	17.140	18.752	-1.750	-0.093	17.140	33.545	1.858	0.055	-0.038
	59	17.244	16.668	2.906	0.174	17.246	31.542	5.253	0.167	0.341
	60	17.344	16.992	-1.838	-0.108	17.346	32.021	2.353	0.073	-0.035

WA24_RN002		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.006	23.030	8.103	0.352	4.010	42.597	11.538	0.271	0.623
	2	4.160	26.229	-0.029	-0.001	4.160	38.995	1.822	0.047	0.046
	3	4.580	20.020	5.598	0.280	4.582	42.732	9.395	0.220	0.500
	4	4.734	24.347	-1.069	-0.044	4.734	37.915	2.246	0.059	0.015
LOCO 4901	5	5.004	22.372	7.140	0.319	5.006	43.228	11.347	0.263	0.582
	6	5.158	27.546	-0.433	-0.016	5.158	37.239	1.885	0.051	0.035
	7	5.578	25.288	6.966	0.275	5.582	41.427	10.138	0.245	0.520
	8	5.732	25.288	-0.530	-0.021	5.732	37.374	1.737	0.046	0.026
MC EMS-1	9	6.050	15.881	2.746	0.173	6.054	29.270	5.619	0.192	0.365
	10	6.152	17.292	-1.108	-0.064	6.152	30.981	4.282	0.138	0.074
	11	7.132	16.822	4.076	0.242	7.136	31.836	7.486	0.235	0.477
	12	7.234	18.891	-0.664	-0.035	7.234	30.395	2.755	0.091	0.055
FC EMS-1	13	7.480	18.045	4.307	0.239	7.482	33.682	7.868	0.234	0.472
	14	7.580	20.584	0.164	0.008	7.580	29.630	2.734	0.092	0.100
	15	8.080	15.834	3.864	0.244	8.082	35.573	8.080	0.227	0.471
	16	8.180	19.879	0.280	0.014	8.180	30.441	1.991	0.065	0.079
T-5	17	8.392	10.613	3.247	0.306	8.394	28.234	6.659	0.236	0.542
	18	8.528	11.742	-0.857	-0.073	8.528	26.433	2.946	0.111	0.038
	19	9.400	12.259	4.211	0.343	9.404	27.199	6.807	0.250	0.594
	20	9.538	14.470	-0.337	-0.023	9.538	24.767	1.800	0.073	0.049
SC EMS-2	21	9.794	20.396	5.174	0.254	9.796	31.656	6.807	0.215	0.469
	22	9.894	19.644	-0.549	-0.028	9.894	32.692	3.010	0.092	0.064
	23	9.998	18.515	3.748	0.202	10.000	31.431	5.746	0.183	0.385
	24	10.098	18.327	-0.973	-0.053	10.098	31.881	4.516	0.142	0.089
	25	10.848	18.327	4.288	0.234	10.852	30.395	6.192	0.204	0.438
	26	10.950	18.562	-0.568	-0.031	10.950	30.981	3.434	0.111	0.080
	27	11.052	17.057	3.498	0.205	11.056	30.170	6.234	0.207	0.412
	28	11.154	17.762	-0.819	-0.046	11.154	30.395	4.176	0.137	0.091
TRIP-MLC	29	11.354	24.723	4.423	0.179	11.356	43.363	3.858	0.089	0.268
	30	11.458	25.570	-0.799	-0.031	11.458	43.498	4.325	0.099	0.068
	31	11.560	25.946	5.579	0.215	11.562	44.623	7.741	0.173	0.388
	32	11.662	24.535	-0.472	-0.019	11.664	39.716	2.734	0.069	0.050
	33	12.288	24.723	7.044	0.285	12.290	39.400	7.613	0.193	0.478
	34	12.392	25.288	-0.934	-0.037	12.392	40.661	3.498	0.086	0.049
	35	12.494	26.511	6.658	0.251	12.496	42.957	7.401	0.172	0.423
	36	12.598	26.087	-0.973	-0.037	12.598	40.886	3.858	0.094	0.057
LCC EMS-1	37	12.798	17.198	4.037	0.235	12.802	30.891	6.255	0.203	0.437
	38	12.900	17.997	-0.876	-0.049	12.900	31.161	3.179	0.102	0.053
	39	13.004	18.186	3.556	0.196	13.006	30.395	5.089	0.167	0.363
	40	13.104	19.644	-1.031	-0.052	13.104	27.559	3.582	0.130	0.078
	41	13.858	16.492	5.097	0.309	13.860	31.071	7.380	0.238	0.547
	42	13.960	18.374	-0.742	-0.040	13.960	31.026	3.349	0.108	0.068
	43	14.062	18.562	3.170	0.171	14.066	28.730	3.625	0.126	0.297
	44	14.164	17.997	-1.435	-0.080	14.164	27.739	4.028	0.145	0.065
MLC EMS-	45	14.368	26.746	-0.761	-0.028	14.370	45.479	-1.594	-0.035	-0.063
	46	14.472	25.711	-2.071	-0.081	14.472	45.569	4.007	0.088	0.007
	47	14.574	22.748	0.010	0.000	14.576	42.417	-1.021	-0.024	-0.024
	48	14.678	22.513	-2.861	-0.127	14.678	43.858	5.874	0.134	0.007
	49	15.428	23.971	0.318	0.013	15.430	41.607	-1.361	-0.033	-0.019
	50	15.532	22.889	-1.936	-0.085	15.532	39.355	3.795	0.096	0.012
	51	15.634	23.312	0.280	0.012	15.636	41.877	2.903	0.069	0.081
	52	15.738	22.654	-2.399	-0.106	15.738	41.652	4.749	0.114	0.008
SC EMS-1	53	15.942	19.456	6.292	0.323	15.944	31.566	7.953	0.252	0.575
	54	16.044	18.186	-0.587	-0.032	16.044	31.611	2.988	0.095	0.062
	55	16.148	17.997	4.481	0.249	16.150	34.133	6.701	0.196	0.445
	56	16.250	17.668	-0.934	-0.053	16.250	31.431	3.370	0.107	0.054
	57	17.008	19.785	4.172	0.211	17.010	29.675	5.555	0.187	0.398
	58	17.110	17.527	-0.761	-0.043	17.110	29.990	3.179	0.106	0.063
	59	17.214	17.151	3.864	0.225	17.216	29.990	5.661	0.189	0.414
	60	17.316	16.916	-1.108	-0.065	17.316	29.765	3.985	0.134	0.068

WA24_RN002		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	3.978	26.941	7.844	0.291	3.982	41.962	8.300	0.198	0.489
	2	4.132	27.787	-0.000	-0.000	4.132	39.994	1.853	0.046	0.046
	3	4.552	22.900	5.332	0.233	4.554	43.230	5.394	0.125	0.358
	4	4.706	26.847	-1.477	-0.055	4.706	37.895	2.315	0.061	0.006
LOCO 49	5	4.976	25.156	6.981	0.278	4.978	42.312	8.050	0.190	0.468
	6	5.130	27.411	-0.346	-0.013	5.130	38.769	2.142	0.055	0.043
	7	5.550	27.317	5.543	0.203	5.552	42.443	6.645	0.157	0.359
	8	5.702	27.411	-1.285	-0.047	5.704	38.594	2.411	0.062	0.016
MC EMS	9	6.022	19.987	2.551	0.128	6.024	33.740	3.700	0.110	0.237
	10	6.120	19.987	-1.707	-0.085	6.122	33.871	2.911	0.086	0.001
	11	7.104	20.739	3.548	0.171	7.106	33.171	4.451	0.134	0.305
	12	7.204	19.893	-1.822	-0.092	7.204	32.209	3.277	0.102	0.010
FC EMS-	13	7.450	21.819	3.836	0.176	7.454	35.445	4.797	0.135	0.311
	14	7.550	20.551	-1.151	-0.056	7.552	31.422	3.566	0.113	0.057
	15	8.050	17.684	2.627	0.149	8.052	35.795	5.086	0.142	0.291
	16	8.150	19.893	-0.288	-0.014	8.150	32.996	2.392	0.072	0.058
T-5	17	8.364	12.656	3.299	0.261	8.366	28.798	4.412	0.153	0.414
	18	8.500	14.348	-0.863	-0.060	8.502	25.605	1.930	0.075	0.015
	19	9.372	14.536	4.526	0.311	9.376	25.561	4.085	0.160	0.471
	20	9.510	16.885	-0.231	-0.014	9.510	24.031	1.391	0.058	0.044
SC EMS-	21	9.764	21.960	4.430	0.202	9.766	32.122	3.816	0.119	0.321
	22	9.862	20.739	-0.998	-0.048	9.864	31.466	2.411	0.077	0.029
	23	9.968	20.833	3.030	0.145	9.970	33.740	4.008	0.119	0.264
	24	10.068	19.752	-1.861	-0.094	10.070	33.871	4.105	0.121	0.027
	25	10.820	22.148	3.625	0.164	10.822	31.772	3.777	0.119	0.283
	26	10.918	19.940	-0.902	-0.045	10.920	31.422	2.373	0.076	0.030
	27	11.024	20.175	2.838	0.141	11.026	30.722	4.259	0.139	0.279
	28	11.124	17.637	-1.228	-0.070	11.124	30.241	3.200	0.106	0.036
TRIP-ML	29	11.324	26.706	3.605	0.135	11.326	43.449	3.046	0.070	0.205
	30	11.426	25.438	-1.439	-0.057	11.428	43.668	4.047	0.093	0.036
	31	11.530	28.727	5.523	0.192	11.532	45.592	5.548	0.122	0.314
	32	11.632	26.048	-1.496	-0.057	11.634	43.930	3.450	0.079	0.021
	33	12.258	27.270	5.926	0.217	12.262	42.093	5.490	0.130	0.348
	34	12.360	26.894	-1.669	-0.062	12.364	42.618	3.162	0.074	0.012
	35	12.464	29.667	5.984	0.202	12.466	44.018	5.067	0.115	0.317
	36	12.566	27.975	-2.014	-0.072	12.568	43.318	3.816	0.088	0.016
LCC EMS	37	12.768	19.705	3.529	0.179	12.772	32.778	4.105	0.125	0.304
	38	12.868	19.893	-1.516	-0.076	12.870	31.334	2.796	0.089	0.013
	39	12.974	19.940	3.222	0.162	12.976	29.672	4.047	0.136	0.298
	40	13.074	19.517	-1.535	-0.079	13.076	29.541	2.834	0.096	0.017
	41	13.828	19.705	4.775	0.242	13.832	33.040	5.067	0.153	0.396
	42	13.928	19.141	-1.401	-0.073	13.930	32.340	2.796	0.086	0.013
	43	14.032	20.457	2.877	0.141	14.036	29.716	3.008	0.101	0.242
	44	14.134	19.376	-1.976	-0.102	14.134	29.585	3.450	0.117	0.015
MLC EM	45	14.338	28.727	-0.307	-0.011	14.340	46.467	-0.976	-0.021	-0.032
	46	14.440	28.163	-2.360	-0.084	14.442	47.079	3.008	0.064	-0.020
	47	14.544	25.767	0.633	0.025	14.546	44.192	2.373	0.054	0.078
	48	14.646	24.592	-2.801	-0.114	14.648	45.242	3.854	0.085	-0.029
	49	15.398	26.095	1.246	0.048	15.400	43.668	2.065	0.047	0.095
	50	15.500	24.686	-1.496	-0.061	15.504	40.912	2.219	0.054	-0.006
	51	15.604	26.283	1.189	0.045	15.606	44.367	2.488	0.056	0.101
	52	15.708	23.840	-2.129	-0.089	15.710	42.224	2.834	0.067	-0.022
SC EMS-	53	15.912	21.678	6.099	0.281	15.916	31.378	4.778	0.152	0.434
	54	16.012	19.799	-1.401	-0.071	16.014	32.821	2.700	0.082	0.012
	55	16.118	19.282	3.682	0.191	16.122	33.696	5.048	0.150	0.341
	56	16.218	19.893	-1.727	-0.087	16.220	33.084	3.200	0.097	0.010
	57	16.978	21.866	3.989	0.182	16.980	29.935	3.623	0.121	0.303
	58	17.080	19.987	-1.285	-0.064	17.080	31.859	2.315	0.073	0.008
	59	17.184	19.987	3.625	0.181	17.186	30.022	3.700	0.123	0.305
	60	17.284	17.261	-1.612	-0.093	17.286	29.804	3.277	0.110	0.017

WA24_RN002		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	3.948	27.352	7.851	0.287	3.952	41.368	10.019	0.242	0.529
	2	4.102	29.769	0.518	0.017	4.102	40.879	0.520	0.013	0.030
	3	4.522	24.936	6.093	0.244	4.524	41.679	7.440	0.179	0.423
	4	4.674	29.033	-0.585	-0.020	4.676	39.369	2.627	0.067	0.047
LOCO 49	5	4.946	26.564	7.583	0.285	4.948	42.302	10.191	0.241	0.526
	6	5.098	29.033	0.101	0.003	5.100	38.480	2.111	0.055	0.058
	7	5.520	27.983	6.808	0.243	5.522	41.235	8.300	0.201	0.445
	8	5.672	28.508	-0.525	-0.018	5.674	39.724	2.970	0.075	0.056
MC EMS	9	5.992	21.627	3.648	0.169	5.996	33.769	4.174	0.124	0.292
	10	6.092	18.895	-0.525	-0.028	6.092	32.614	3.572	0.110	0.082
	11	7.074	20.891	4.572	0.219	7.078	32.525	6.172	0.190	0.409
	12	7.174	20.523	-0.346	-0.017	7.176	31.369	3.271	0.104	0.087
FC EMS-	13	7.422	22.940	5.526	0.241	7.424	34.213	7.075	0.207	0.448
	14	7.522	20.891	0.041	0.002	7.522	33.680	4.346	0.129	0.131
	15	8.020	19.525	4.692	0.240	8.024	37.813	7.053	0.187	0.427
	16	8.120	21.679	0.488	0.023	8.122	36.435	2.669	0.073	0.096
T-5	17	8.332	14.955	4.244	0.284	8.336	28.170	5.678	0.202	0.485
	18	8.470	15.060	0.458	0.030	8.470	25.948	1.939	0.075	0.105
	19	9.342	16.111	5.019	0.312	9.344	25.503	5.743	0.225	0.537
	20	9.478	18.002	0.488	0.027	9.480	24.748	0.907	0.037	0.064
SC EMS-	21	9.734	23.885	5.496	0.230	9.736	31.814	5.399	0.170	0.400
	22	9.834	22.309	0.220	0.010	9.836	33.325	2.906	0.087	0.097
	23	9.938	20.891	4.155	0.199	9.940	31.769	5.291	0.167	0.365
	24	10.038	20.523	-1.360	-0.066	10.040	33.591	4.625	0.138	0.071
	25	10.790	23.780	5.586	0.235	10.792	29.414	6.151	0.209	0.444
	26	10.890	20.208	0.220	0.011	10.890	32.480	2.884	0.089	0.100
	27	10.994	20.891	4.453	0.213	10.996	29.414	5.893	0.200	0.414
	28	11.094	19.158	-0.108	-0.006	11.096	30.880	3.615	0.117	0.111
TRIP-ML	29	11.294	29.138	4.334	0.149	11.296	44.035	-0.790	-0.018	0.131
	30	11.398	26.407	0.220	0.008	11.400	44.879	5.549	0.124	0.132
	31	11.500	28.823	6.033	0.209	11.502	43.901	6.516	0.148	0.358
	32	11.604	26.827	-0.376	-0.014	11.604	45.679	4.432	0.097	0.083
	33	12.228	28.088	6.927	0.247	12.232	41.857	7.698	0.184	0.431
	34	12.332	27.983	-0.078	-0.003	12.334	42.835	3.508	0.082	0.079
	35	12.434	29.191	6.957	0.238	12.438	42.213	6.516	0.154	0.393
	36	12.538	28.823	-1.479	-0.051	12.538	43.990	4.174	0.095	0.044
LCC EMS	37	12.740	19.998	4.274	0.214	12.742	32.836	5.033	0.153	0.367
	38	12.840	19.315	-0.525	-0.027	12.840	31.769	3.808	0.120	0.093
	39	12.944	20.629	3.827	0.186	12.946	28.747	4.475	0.156	0.341
	40	13.044	20.839	-0.495	-0.024	13.046	30.836	3.250	0.105	0.082
	41	13.798	20.366	5.705	0.280	13.802	32.925	7.268	0.221	0.501
	42	13.900	19.736	-0.257	-0.013	13.900	31.236	3.228	0.103	0.090
	43	14.004	21.679	3.648	0.168	14.006	29.814	3.357	0.113	0.281
	44	14.104	19.683	-0.227	-0.012	14.104	29.325	3.486	0.119	0.107
MLC EM	45	14.308	30.924	0.935	0.030	14.310	45.501	-2.015	-0.044	-0.014
	46	14.412	31.292	-2.016	-0.064	14.414	46.479	3.142	0.068	0.003
	47	14.514	27.615	1.711	0.062	14.516	42.257	-1.027	-0.024	0.038
	48	14.618	26.880	-2.135	-0.079	14.618	42.390	3.529	0.083	0.004
	49	15.368	28.035	1.800	0.064	15.372	41.324	-0.790	-0.019	0.045
	50	15.472	27.668	-0.138	-0.005	15.474	40.613	2.476	0.061	0.056
	51	15.574	28.718	2.158	0.075	15.578	41.679	3.078	0.074	0.149
	52	15.678	27.247	-1.569	-0.058	15.680	42.790	3.013	0.070	0.013
SC EMS-	53	15.882	23.728	7.166	0.302	15.886	31.325	6.753	0.216	0.518
	54	15.984	21.049	-0.168	-0.008	15.984	33.191	3.035	0.091	0.083
	55	16.088	18.843	4.662	0.247	16.092	32.436	5.829	0.180	0.427
	56	16.190	20.523	-0.585	-0.029	16.190	35.058	3.744	0.107	0.078
	57	16.948	23.780	5.228	0.220	16.952	28.925	5.205	0.180	0.400
	58	17.050	20.208	-0.108	-0.005	17.050	32.169	2.584	0.080	0.075
	59	17.154	21.259	4.751	0.223	17.158	29.503	4.776	0.162	0.385
	60	17.254	17.162	-0.287	-0.017	17.256	31.236	3.680	0.118	0.101













WA38_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.822	24.915	6.819	0.274	4.820	41.844	7.607	0.182	0.455
	2	4.984	25.428	-1.189	-0.047	4.980	38.180	1.750	0.046	-0.001
	3	5.430	24.728	7.483	0.303	5.428	38.716	9.488	0.245	0.548
	4	5.594	23.095	-1.230	-0.053	5.590	38.716	1.408	0.036	-0.017
LOCO 4901	5	5.882	22.675	5.906	0.260	5.880	42.067	7.393	0.176	0.436
	6	6.046	22.162	-1.521	-0.069	6.042	38.180	1.259	0.033	-0.036
	7	6.496	24.122	7.462	0.309	6.496	41.844	8.077	0.193	0.502
	8	6.662	22.302	-1.687	-0.076	6.658	39.208	1.686	0.043	-0.033
MC EMS-1	9	7.006	20.109	5.429	0.270	7.004	30.228	5.085	0.168	0.438
	10	7.114	19.129	-1.624	-0.085	7.108	28.709	2.178	0.076	-0.009
	11	8.178	17.963	4.475	0.249	8.178	28.441	5.341	0.188	0.437
	12	8.288	20.996	-1.666	-0.079	8.284	33.311	2.199	0.066	-0.013
FC EMS-1	13	8.558	20.436	5.761	0.282	8.556	32.864	6.560	0.200	0.482
	14	8.666	24.075	0.305	0.013	8.662	33.355	1.579	0.047	0.060
	15	9.214	19.736	4.807	0.244	9.212	31.836	6.645	0.209	0.452
	16	9.324	23.515	-1.417	-0.060	9.320	31.524	1.985	0.063	0.003
T-5	17	9.556	16.610	5.056	0.304	9.554	24.242	6.047	0.249	0.554
	18	9.708	16.190	-1.604	-0.099	9.702	24.822	2.135	0.086	-0.013
	19	10.674	15.677	4.392	0.280	10.672	24.465	5.192	0.212	0.492
	20	10.828	16.237	-1.645	-0.101	10.824	24.420	2.007	0.082	-0.019
SC EMS-2	21	11.112	22.489	6.445	0.287	11.108	28.307	6.495	0.229	0.516
	22	11.224	23.608	-0.857	-0.036	11.220	28.575	1.900	0.066	0.030
	23	11.340	20.996	5.989	0.285	11.338	31.345	6.132	0.196	0.481
	24	11.452	19.969	-0.898	-0.045	11.448	33.043	2.028	0.061	0.016
	25	12.300	19.876	6.114	0.308	12.298	28.620	6.880	0.240	0.548
	26	12.414	20.389	-0.753	-0.037	12.408	30.943	1.857	0.060	0.023
	27	12.530	19.223	5.222	0.272	12.528	30.005	5.427	0.181	0.452
	28	12.644	18.990	-1.313	-0.069	12.642	31.256	2.092	0.067	-0.002
TRIP-MLC	29	12.872	32.659	10.429	0.319	12.868	36.885	10.193	0.276	0.596
	30	12.990	31.120	-0.857	-0.028	12.984	37.823	2.819	0.075	0.047
	31	13.106	32.426	8.354	0.258	13.104	39.074	6.666	0.171	0.428
	32	13.224	29.440	-1.790	-0.061	13.218	41.799	3.161	0.076	0.015
	33	13.942	28.787	9.142	0.318	13.940	35.187	9.638	0.274	0.591
	34	14.062	27.901	-1.251	-0.045	14.058	36.751	2.220	0.060	0.016
	35	14.180	31.726	9.350	0.295	14.176	40.995	8.847	0.216	0.511
	36	14.300	29.394	-2.143	-0.073	14.294	40.012	3.204	0.080	0.007
LCC EMS-1	37	14.532	24.122	7.296	0.302	14.528	24.733	6.560	0.265	0.568
	38	14.648	22.535	-1.562	-0.069	14.644	26.922	2.391	0.089	0.020
	39	14.768	21.789	6.362	0.292	14.766	28.530	5.512	0.193	0.485
	40	14.886	20.482	-1.189	-0.058	14.880	29.424	1.772	0.060	0.002
	41	15.768	19.316	6.653	0.344	15.766	27.860	7.073	0.254	0.598
	42	15.886	19.923	-1.043	-0.052	15.882	30.273	1.878	0.062	0.010
	43	16.010	17.916	5.802	0.324	16.006	30.228	6.389	0.211	0.535
	44	16.126	18.616	-1.023	-0.055	16.124	30.853	1.857	0.060	0.005
MLC EMS-	45	16.368	32.426	4.890	0.151	16.366	40.325	4.337	0.108	0.258
	46	16.490	32.333	-1.811	-0.056	16.486	40.325	1.921	0.048	-0.008
	47	16.612	30.887	0.907	0.029	16.608	36.706	-1.648	-0.045	-0.016
	48	16.734	29.534	-2.018	-0.068	16.730	38.672	1.323	0.034	-0.034
	49	17.628	28.927	4.495	0.155	17.626	33.534	3.909	0.117	0.272
	50	17.752	27.527	-2.350	-0.085	17.748	35.723	1.750	0.049	-0.036
	51	17.874	28.694	2.462	0.086	17.872	39.163	2.220	0.057	0.143
	52	18.000	29.534	-2.267	-0.077	17.996	38.761	1.152	0.030	-0.047
SC EMS-1	53	18.246	25.381	7.856	0.310	18.242	24.822	6.902	0.278	0.588
	54	18.366	26.268	-1.147	-0.044	18.360	25.269	1.515	0.060	0.016
	55	18.492	27.201	7.669	0.282	18.490	24.867	6.239	0.251	0.533
	56	18.614	23.748	-0.919	-0.039	18.610	29.156	1.878	0.064	0.026
	57	19.532	23.655	7.732	0.327	19.528	25.269	6.902	0.273	0.600
	58	19.654	22.115	-1.023	-0.046	19.650	28.932	-1.772	0.061	-0.015
	59	19.780	20.109	5.968	0.297	19.778	27.726	5.427	0.196	0.493
	60	19.904	19.503	-0.691	-0.035	19.900	28.084	1.665	0.059	0.024

WA38_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.850	27.783	5.867	0.211	4.850	45.251	6.827	0.151	0.362
	2	5.014	27.227	-1.569	-0.058	5.010	39.153	0.617	0.016	-0.042
	3	5.460	27.597	6.683	0.242	5.458	42.638	7.944	0.186	0.428
	4	5.624	25.189	-1.459	-0.058	5.620	38.718	-0.006	-0.000	-0.058
LOCO 4901	5	5.912	24.633	5.072	0.206	5.910	45.382	6.547	0.144	0.350
	6	6.076	25.235	-1.944	-0.077	6.072	39.502	0.338	0.009	-0.068
	7	6.528	28.292	6.727	0.238	6.526	44.511	7.256	0.163	0.401
	8	6.692	24.818	-1.635	-0.066	6.690	41.157	0.102	0.002	-0.063
MC EMS-1	9	7.036	20.279	4.013	0.198	7.034	31.923	5.022	0.157	0.355
	10	7.144	20.002	-1.569	-0.078	7.140	27.873	1.219	0.044	-0.035
	11	8.208	18.288	3.285	0.180	8.208	30.660	5.022	0.164	0.343
	12	8.318	18.473	-1.680	-0.091	8.314	28.482	1.584	0.056	-0.035
FC EMS-1	13	8.588	20.696	4.653	0.225	8.586	34.014	5.559	0.163	0.388
	14	8.698	22.966	-0.753	-0.033	8.694	29.658	0.274	0.009	-0.024
	15	9.244	22.225	4.234	0.191	9.244	32.751	5.817	0.178	0.368
	16	9.354	24.772	-1.900	-0.077	9.352	29.310	1.241	0.042	-0.034
T-5	17	9.588	16.389	3.969	0.242	9.586	27.263	5.752	0.211	0.453
	18	9.738	16.806	-2.165	-0.129	9.736	26.740	1.885	0.071	-0.058
	19	10.706	16.250	3.991	0.246	10.706	25.826	5.129	0.199	0.444
	20	10.860	17.315	-1.922	-0.111	10.856	26.566	1.477	0.056	-0.055
SC EMS-2	21	11.142	22.503	5.227	0.232	11.142	30.268	6.633	0.219	0.451
	22	11.256	25.189	-0.841	-0.033	11.252	27.742	0.295	0.011	-0.023
	23	11.370	20.974	5.514	0.263	11.370	33.448	5.602	0.167	0.430
	24	11.486	21.669	-1.591	-0.073	11.480	32.751	0.897	0.027	-0.046
	25	12.330	19.724	5.183	0.263	12.330	30.747	5.946	0.193	0.456
	26	12.446	20.974	-0.709	-0.034	12.442	30.834	0.424	0.014	-0.020
	27	12.562	18.751	4.763	0.254	12.560	31.923	5.237	0.164	0.418
	28	12.676	18.844	-1.680	-0.089	12.672	31.139	1.090	0.035	-0.054
TRIP-MLC	29	12.902	32.553	9.397	0.289	12.902	38.805	9.362	0.241	0.530
	30	13.022	31.766	-0.709	-0.022	13.018	38.282	0.983	0.026	0.003
	31	13.136	31.349	7.301	0.233	13.136	42.289	6.139	0.145	0.378
	32	13.256	30.330	-2.121	-0.070	13.252	40.373	1.369	0.034	-0.036
	33	13.974	29.589	8.470	0.286	13.972	38.021	7.815	0.206	0.492
	34	14.094	28.385	-1.415	-0.050	14.090	37.847	0.746	0.020	-0.030
	35	14.212	31.441	8.161	0.260	14.210	42.376	7.944	0.187	0.447
	36	14.332	29.959	-2.165	-0.072	14.328	40.024	1.305	0.033	-0.040
LCC EMS-1	37	14.564	23.522	5.823	0.248	14.562	25.608	6.418	0.251	0.498
	38	14.680	22.503	-1.282	-0.057	14.676	25.738	0.983	0.038	-0.019
	39	14.800	20.326	5.580	0.275	14.800	30.050	5.151	0.171	0.446
	40	14.918	20.141	-1.724	-0.086	14.916	31.836	0.703	0.022	-0.063
	41	15.800	19.214	5.492	0.286	15.798	30.834	6.247	0.203	0.488
	42	15.920	19.955	-1.282	-0.064	15.916	31.967	0.660	0.021	-0.044
	43	16.040	18.288	5.205	0.285	16.040	30.529	5.709	0.187	0.472
	44	16.162	18.658	-1.437	-0.077	16.156	31.183	0.854	0.027	-0.050
MLC EMS-	45	16.402	32.090	2.822	0.088	16.400	42.376	4.356	0.103	0.191
	46	16.524	32.414	-2.165	-0.067	16.520	39.807	1.219	0.031	-0.036
	47	16.644	30.515	-0.598	-0.020	16.644	40.199	-2.627	-0.065	-0.085
	48	16.768	29.265	-2.673	-0.091	16.764	39.894	0.703	0.018	-0.074
	49	17.662	28.848	2.778	0.096	17.660	36.584	3.668	0.100	0.197
	50	17.786	27.366	-2.297	-0.084	17.782	36.235	0.897	0.025	-0.059
	51	17.908	28.338	1.079	0.038	17.908	39.589	1.606	0.041	0.079
	52	18.034	30.006	-2.981	-0.099	18.030	39.371	0.725	0.018	-0.081
SC EMS-1	53	18.278	24.726	6.440	0.260	18.278	26.305	6.139	0.233	0.494
	54	18.402	25.282	-1.216	-0.048	18.396	25.738	0.317	0.012	-0.036
	55	18.524	24.957	6.484	0.260	18.524	27.655	5.538	0.200	0.460
	56	18.646	23.660	-1.481	-0.063	18.644	30.529	0.789	0.026	-0.037
	57	19.564	23.429	6.220	0.265	19.564	28.003	6.118	0.218	0.484
	58	19.688	22.549	-1.304	-0.058	19.686	29.789	0.660	0.022	-0.036
	59	19.814	18.149	4.719	0.260	19.814	29.615	4.979	0.168	0.428
	60	19.938	19.492	-1.569	-0.081	19.934	30.050	0.854	0.028	-0.052

WA38_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	4.880	28.550	8.249	0.289	-0.002	0.068	-0.333	-4.932	-4.643
	2	5.042	27.421	0.676	0.025	4.880	42.076	10.274	0.244	0.269
	3	5.490	26.998	9.001	0.333	5.040	33.476	0.706	0.021	0.354
	4	5.654	25.869	0.599	0.023	5.490	38.114	11.165	0.293	0.316
LOCO 4901	5	5.942	25.634	7.883	0.308	5.650	32.756	0.728	0.022	0.330
	6	6.106	26.246	0.175	0.007	5.942	42.436	9.680	0.228	0.235
	7	6.558	28.409	9.078	0.320	6.104	36.223	0.728	0.020	0.340
	8	6.722	25.023	0.195	0.008	6.558	42.616	9.956	0.234	0.241
MC EMS-1	9	7.066	19.755	6.361	0.322	6.720	35.367	1.131	0.032	0.354
	10	7.174	21.260	0.407	0.019	7.066	31.000	7.559	0.244	0.263
	11	8.240	19.802	5.918	0.299	7.172	28.793	1.110	0.039	0.337
	12	8.348	18.344	-0.326	-0.018	8.240	31.270	7.474	0.239	0.221
FC EMS-1	13	8.618	21.683	6.920	0.319	8.346	26.857	2.234	0.083	0.402
	14	8.728	23.000	1.486	0.065	8.618	32.441	7.538	0.232	0.297
	15	9.276	21.307	6.650	0.312	8.726	28.073	0.261	0.009	0.321
	16	9.386	26.434	0.927	0.035	9.276	29.109	6.350	0.218	0.253
T-5	17	9.618	17.497	6.265	0.358	9.384	27.353	1.364	0.050	0.408
	18	9.770	16.556	-0.383	-0.023	9.620	25.372	6.965	0.275	0.251
	19	10.738	16.086	4.993	0.310	9.768	24.246	2.170	0.090	0.400
	20	10.890	17.168	-0.249	-0.014	10.738	23.481	5.777	0.246	0.232
SC EMS-2	21	11.174	22.295	7.614	0.342	10.888	23.255	1.704	0.073	0.415
	22	11.288	25.070	1.833	0.073	11.174	28.568	7.941	0.278	0.351
	23	11.404	20.601	7.286	0.354	11.284	23.886	-0.248	-0.010	0.343
	24	11.516	21.260	1.023	0.048	11.402	30.910	7.219	0.234	0.282
	25	12.364	19.472	7.228	0.371	11.514	30.459	1.194	0.039	0.410
	26	12.478	20.178	1.678	0.083	12.364	28.748	7.623	0.265	0.348
	27	12.596	18.438	6.438	0.349	12.474	27.128	0.303	0.011	0.360
	28	12.710	18.108	0.657	0.036	12.594	29.604	7.368	0.249	0.285
TRIP-MLC	29	12.936	32.972	11.737	0.356	12.706	28.478	1.364	0.048	0.404
	30	13.054	31.796	2.160	0.068	12.936	36.403	11.738	0.322	0.390
	31	13.170	30.808	9.194	0.298	13.052	35.142	1.343	0.038	0.337
	32	13.288	28.974	0.753	0.026	13.170	38.924	8.768	0.225	0.251
	33	14.008	29.444	10.311	0.350	13.286	36.178	1.746	0.048	0.398
	34	14.128	28.550	1.062	0.037	14.008	34.827	9.256	0.266	0.303
	35	14.244	29.538	10.003	0.339	14.124	34.962	-0.821	-0.023	0.315
	36	14.366	32.925	1.139	0.035	14.244	40.275	10.317	0.256	0.291
LCC EMS-1	37	14.596	23.470	7.883	0.336	14.366	36.808	1.491	0.041	0.376
	38	14.712	22.577	0.985	0.044	14.596	24.876	8.365	0.336	0.380
	39	14.834	20.978	7.344	0.350	14.712	22.715	1.216	0.054	0.404
	40	14.952	20.366	0.561	0.028	14.834	28.433	7.474	0.263	0.290
	41	15.834	18.673	7.228	0.387	14.948	27.893	1.428	0.051	0.438
	42	15.952	19.990	1.062	0.053	15.834	28.748	8.047	0.280	0.333
	43	16.076	19.096	7.190	0.377	15.950	27.713	0.706	0.025	0.402
	44	16.194	17.967	0.908	0.051	16.076	29.694	7.580	0.255	0.306
MLC EMS-	45	16.436	32.736	5.918	0.181	16.192	26.992	0.982	0.036	0.217
	46	16.558	32.548	0.753	0.023	16.434	39.194	5.204	0.133	0.156
	47	16.678	29.256	1.987	0.068	16.556	35.952	0.876	0.024	0.092
	48	16.802	29.632	0.252	0.009	16.678	36.673	-2.476	-0.068	-0.059
	49	17.696	29.068	5.243	0.180	16.800	35.547	1.322	0.037	0.218
	50	17.820	28.080	0.195	0.007	17.696	34.377	4.716	0.137	0.144
	51	17.944	28.409	2.700	0.095	17.818	33.521	1.746	0.052	0.147
	52	18.070	29.632	-0.557	-0.019	17.942	36.223	2.085	0.058	0.039
SC EMS-1	53	18.314	26.057	9.001	0.345	18.064	35.277	1.788	0.051	0.396
	54	18.436	25.399	1.062	0.042	18.312	24.336	8.132	0.334	0.376
	55	18.560	25.540	8.519	0.334	18.432	23.030	0.706	0.031	0.364
	56	18.682	23.659	1.177	0.050	18.560	26.902	7.389	0.275	0.324
	57	19.600	22.436	8.230	0.367	18.680	27.848	0.940	0.034	0.401
	58	19.724	21.965	1.043	0.047	19.600	26.047	7.813	0.300	0.347
	59	19.850	18.673	6.785	0.363	19.722	26.902	0.940	0.035	0.398
	60	19.974	19.049	1.139	0.060	19.850	27.308	6.753	0.247	0.307

WA38_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	4.912	28.664	6.941	0.242	4.910	43.028	9.417	0.219	0.461
	2	5.074	30.215	0.113	0.004	5.070	33.931	0.776	0.023	0.027
	3	5.522	28.946	8.092	0.280	5.520	39.398	10.283	0.261	0.541
	4	5.684	28.429	-0.462	-0.016	5.682	33.407	0.757	0.023	0.006
LOCO 49	5	5.974	27.395	7.018	0.256	5.972	43.553	9.398	0.216	0.472
	6	6.138	27.113	-0.750	-0.028	6.134	36.774	1.142	0.031	0.003
	7	6.590	28.147	8.476	0.301	6.588	41.279	10.052	0.244	0.545
	8	6.754	27.959	-0.769	-0.028	6.750	34.456	1.161	0.034	0.006
MC EMS	9	7.096	19.313	4.812	0.249	7.096	31.482	6.684	0.212	0.461
	10	7.204	23.354	-0.692	-0.030	7.202	32.138	1.700	0.053	0.023
	11	8.272	22.414	5.042	0.225	8.270	34.106	6.299	0.185	0.410
	12	8.382	22.461	-0.884	-0.039	8.378	32.094	1.815	0.057	0.017
FC EMS-	13	8.652	25.187	6.059	0.241	8.650	36.031	6.665	0.185	0.426
	14	8.760	25.234	0.554	0.022	8.756	29.558	0.718	0.024	0.046
	15	9.308	23.589	5.656	0.240	9.306	29.383	5.529	0.188	0.428
	16	9.418	26.455	0.478	0.018	9.414	26.584	0.834	0.031	0.049
T-5	17	9.652	18.044	5.196	0.288	9.650	24.616	6.723	0.273	0.561
	18	9.802	17.621	-0.942	-0.053	9.798	23.785	1.931	0.081	0.028
	19	10.770	17.057	4.352	0.255	10.768	23.085	5.414	0.235	0.490
	20	10.924	18.279	-0.788	-0.043	10.920	24.135	1.488	0.062	0.019
SC EMS-	21	11.208	24.435	7.344	0.301	11.206	29.295	7.262	0.248	0.548
	22	11.320	26.831	1.226	0.046	11.316	26.190	0.276	0.011	0.056
	23	11.438	21.803	6.366	0.292	11.436	32.444	6.646	0.205	0.497
	24	11.550	22.461	0.363	0.016	11.546	30.608	1.045	0.034	0.050
	25	12.400	21.286	6.826	0.321	12.396	31.395	6.819	0.217	0.538
	26	12.512	21.427	0.784	0.037	12.508	28.202	0.449	0.016	0.053
	27	12.630	19.783	6.059	0.306	12.628	32.007	6.492	0.203	0.509
	28	12.744	18.984	-0.117	-0.006	12.740	28.115	1.142	0.041	0.034
TRIP-ML	29	12.970	33.222	10.662	0.321	12.968	38.480	11.111	0.289	0.610
	30	13.088	33.786	1.341	0.040	13.084	37.780	1.334	0.035	0.075
	31	13.204	31.389	8.974	0.286	13.202	39.180	8.301	0.212	0.498
	32	13.324	32.329	0.228	0.007	13.320	37.693	1.411	0.037	0.045
	33	14.042	28.617	9.109	0.318	14.040	36.599	8.339	0.228	0.546
	34	14.162	29.651	0.209	0.007	14.158	37.299	1.103	0.030	0.037
	35	14.280	29.557	8.878	0.300	14.276	41.804	9.763	0.234	0.534
	36	14.400	33.081	0.209	0.006	14.396	38.349	1.546	0.040	0.047
LCC EMS	37	14.632	25.610	8.015	0.313	14.630	26.409	7.550	0.286	0.599
	38	14.748	24.811	0.132	0.005	14.744	25.272	1.007	0.040	0.045
	39	14.870	21.474	6.673	0.311	14.868	31.001	6.396	0.206	0.517
	40	14.986	21.192	-0.021	-0.001	14.982	29.689	1.007	0.034	0.033
	41	15.870	20.159	6.941	0.344	15.868	30.695	6.877	0.224	0.568
	42	15.990	20.629	0.152	0.007	15.984	28.683	0.737	0.026	0.033
	43	16.112	20.488	6.845	0.334	16.108	31.701	6.626	0.209	0.543
	44	16.230	20.629	0.382	0.019	16.226	27.240	0.757	0.028	0.046
MLC EM	45	16.472	34.914	5.368	0.154	16.470	41.541	4.683	0.113	0.266
	46	16.594	35.665	0.286	0.008	16.590	39.180	0.814	0.021	0.029
	47	16.716	30.684	2.376	0.077	16.712	39.398	1.796	0.046	0.123
	48	16.840	31.154	-0.712	-0.023	16.834	38.130	1.257	0.033	0.010
	49	17.734	30.215	4.314	0.143	17.732	35.681	3.932	0.110	0.253
	50	17.858	29.886	-0.462	-0.015	17.852	35.506	0.930	0.026	0.011
	51	17.980	30.544	2.818	0.092	17.978	39.267	1.700	0.043	0.136
	52	18.106	32.470	-1.134	-0.035	18.102	36.905	1.161	0.031	-0.003
SC EMS-	53	18.350	27.301	9.032	0.331	18.348	26.015	7.377	0.284	0.614
	54	18.472	27.019	0.497	0.018	18.466	24.441	0.564	0.023	0.041
	55	18.598	24.858	7.785	0.313	18.596	29.208	6.761	0.231	0.545
	56	18.720	23.918	0.497	0.021	18.716	29.077	0.930	0.032	0.053
	57	19.638	23.636	7.804	0.330	19.636	28.071	6.915	0.246	0.577
	58	19.760	22.320	0.132	0.006	19.756	28.246	1.045	0.037	0.043
	59	19.886	20.065	6.538	0.326	19.886	30.695	5.953	0.194	0.520
	60	20.010	20.065	0.382	0.019	20.006	26.759	0.834	0.031	0.050

WA38_RN001		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	4.942	29.840	8.101	0.271	4.940	41.774	12.542	0.300	0.572
	2	5.104	33.255	0.976	0.029	5.100	32.175	1.067	0.033	0.063
	3	5.552	28.947	8.876	0.307	5.550	39.507	13.595	0.344	0.651
	4	5.714	31.048	0.827	0.027	5.710	31.286	0.551	0.018	0.044
LOCO 49	5	6.004	24.692	6.759	0.274	6.002	42.529	12.134	0.285	0.559
	6	6.168	29.630	0.648	0.022	6.164	36.441	1.110	0.030	0.052
	7	6.620	25.638	8.309	0.324	6.618	41.951	13.166	0.314	0.638
	8	6.784	31.101	0.797	0.026	6.782	32.974	0.701	0.021	0.047
MC EMS	9	7.128	18.336	5.805	0.317	7.126	29.064	6.482	0.223	0.540
	10	7.236	23.064	0.559	0.024	7.232	28.175	2.012	0.071	0.096
	11	8.302	18.441	5.686	0.308	8.300	29.908	7.320	0.245	0.553
	12	8.412	24.430	0.439	0.018	8.408	30.619	2.012	0.066	0.084
FC EMS-	13	8.682	24.272	7.594	0.313	8.680	31.019	7.105	0.229	0.542
	14	8.790	26.321	1.781	0.068	8.788	27.597	1.540	0.056	0.123
	15	9.340	25.165	7.117	0.283	9.338	28.619	7.578	0.265	0.548
	16	9.450	28.002	1.423	0.051	9.446	24.264	1.131	0.047	0.097
T-5	17	9.682	20.542	6.938	0.338	9.682	23.731	6.891	0.290	0.628
	18	9.834	19.649	0.380	0.019	9.830	24.753	2.249	0.091	0.110
	19	10.802	18.966	6.163	0.325	10.800	22.709	6.547	0.288	0.613
	20	10.956	19.492	0.320	0.016	10.952	23.909	1.754	0.073	0.090
SC EMS-	21	11.240	24.219	8.279	0.342	11.238	27.508	8.008	0.291	0.633
	22	11.352	28.369	2.109	0.074	11.350	24.575	1.002	0.041	0.115
	23	11.468	22.539	7.832	0.348	11.468	32.352	7.256	0.224	0.572
	24	11.582	24.430	1.214	0.050	11.578	29.242	1.153	0.039	0.089
	25	12.430	22.854	7.922	0.347	12.428	30.975	7.793	0.252	0.598
	26	12.544	23.274	1.870	0.080	12.540	27.731	0.895	0.032	0.113
	27	12.662	20.017	6.461	0.323	12.660	30.841	7.320	0.237	0.560
	28	12.776	21.383	0.916	0.043	12.772	27.464	1.217	0.044	0.087
TRIP-ML	29	13.002	32.519	11.409	0.351	13.000	36.263	11.124	0.307	0.658
	30	13.120	36.932	2.258	0.061	13.116	34.930	1.239	0.035	0.097
	31	13.236	33.150	10.515	0.317	13.236	38.130	8.997	0.236	0.553
	32	13.356	34.936	1.155	0.033	13.352	36.352	1.733	0.048	0.081
	33	14.076	30.155	10.217	0.339	14.072	35.552	9.383	0.264	0.603
	34	14.194	32.939	0.827	0.025	14.192	34.485	1.153	0.033	0.059
	35	14.312	30.943	10.515	0.340	14.310	39.729	11.339	0.285	0.625
	36	14.432	35.461	1.155	0.033	14.428	36.085	1.626	0.045	0.078
LCC EMS	37	14.664	26.216	9.323	0.356	14.662	24.531	8.438	0.344	0.700
	38	14.782	26.163	1.036	0.040	14.778	23.687	1.045	0.044	0.084
	39	14.902	22.433	8.071	0.360	14.900	30.086	7.363	0.245	0.605
	40	15.020	23.589	1.125	0.048	15.016	27.731	0.830	0.030	0.078
	41	15.904	21.961	8.279	0.377	15.902	29.597	8.094	0.273	0.650
	42	16.022	22.539	1.155	0.051	16.018	26.486	0.530	0.020	0.071
	43	16.144	20.385	7.981	0.392	16.142	29.508	8.481	0.287	0.679
	44	16.264	22.433	1.274	0.057	16.260	26.353	0.572	0.022	0.079
MLC EM	45	16.506	36.722	6.908	0.188	16.502	39.285	6.547	0.167	0.355
	46	16.628	38.928	0.946	0.024	16.624	37.152	0.895	0.024	0.048
	47	16.748	33.938	3.540	0.104	16.746	36.796	2.292	0.062	0.167
	48	16.872	35.566	0.648	0.018	16.868	36.085	1.045	0.029	0.047
	49	17.768	31.889	5.388	0.169	17.764	34.485	5.515	0.160	0.329
	50	17.892	32.519	0.261	0.008	17.888	33.063	1.110	0.034	0.042
	51	18.014	33.360	4.017	0.120	18.012	36.352	2.872	0.079	0.199
	52	18.138	35.356	-0.932	-0.026	18.134	34.663	1.497	0.043	0.017
SC EMS-	53	18.384	27.897	10.307	0.369	18.382	24.531	8.631	0.352	0.721
	54	18.506	28.842	1.364	0.047	18.502	23.020	0.572	0.025	0.072
	55	18.632	26.321	9.084	0.345	18.628	28.575	8.158	0.286	0.631
	56	18.754	25.795	1.483	0.057	18.750	27.553	0.680	0.025	0.082
	57	19.672	25.007	9.054	0.362	19.670	27.686	8.008	0.289	0.651
	58	19.794	24.325	0.976	0.040	19.792	27.242	1.088	0.040	0.080
	59	19.922	20.963	7.624	0.364	19.920	27.953	7.428	0.266	0.629
	60	20.046	23.484	1.453	0.062	20.040	25.909	0.744	0.029	0.091

WA39_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	6.780	32.997	12.930	0.392	6.778	38.798	11.076	0.285	0.677
	2	6.978	27.259	-0.346	-0.013	6.974	32.007	1.436	0.045	0.032
	3	7.526	31.131	12.474	0.401	7.522	36.251	10.606	0.293	0.693
	4	7.726	26.605	0.566	0.021	7.722	32.990	0.517	0.016	0.037
LOCO 4901	5	8.082	31.084	10.462	0.337	8.078	38.976	10.200	0.262	0.598
	6	8.286	25.812	-0.595	-0.023	8.280	33.258	1.158	0.035	0.012
	7	8.846	29.871	11.976	0.401	8.842	39.914	10.200	0.256	0.656
	8	9.050	27.025	-0.512	-0.019	9.046	33.571	1.030	0.031	0.012
MC EMS-1	9	9.478	24.413	7.433	0.304	9.476	29.907	6.096	0.204	0.508
	10	9.614	24.319	-0.803	-0.033	9.610	29.103	2.163	0.074	0.041
	11	10.960	18.767	5.130	0.273	10.956	29.192	6.096	0.209	0.482
	12	11.098	21.613	-1.404	-0.065	11.094	27.137	2.227	0.082	0.017
FC EMS-1	13	11.444	23.293	8.678	0.373	11.440	28.254	6.545	0.232	0.604
	14	11.582	26.605	1.002	0.038	11.578	27.093	1.179	0.044	0.081
	15	12.288	28.098	10.005	0.356	12.286	22.581	6.737	0.298	0.654
	16	12.432	28.658	0.234	0.008	12.426	26.423	1.692	0.064	0.072
T-5	17	12.734	21.287	7.391	0.347	12.732	22.447	7.186	0.320	0.667
	18	12.930	17.928	-1.156	-0.064	12.924	23.563	2.398	0.102	0.037
	19	14.202	17.461	6.250	0.358	14.200	22.178	6.502	0.293	0.651
	20	14.406	16.995	-1.301	-0.077	14.402	23.161	1.949	0.084	0.008
SC EMS-2	21	14.784	26.139	8.864	0.339	14.784	26.691	6.993	0.262	0.601
	22	14.934	27.539	0.566	0.021	14.930	26.825	1.115	0.042	0.062
	23	15.092	25.766	8.947	0.347	15.090	28.790	6.224	0.216	0.563
	24	15.242	25.346	0.400	0.016	15.238	28.567	1.350	0.047	0.063
	25	16.394	22.733	8.532	0.375	16.390	26.467	7.100	0.268	0.644
	26	16.550	23.106	0.525	0.023	16.544	29.773	1.479	0.050	0.072
	27	16.712	22.453	7.163	0.319	16.708	28.924	5.540	0.192	0.511
	28	16.870	21.800	0.380	0.017	16.864	27.897	1.201	0.043	0.060
TRIP-MLC	29	17.182	38.782	14.445	0.372	17.180	32.186	12.294	0.382	0.754
	30	17.346	37.056	1.811	0.049	17.342	31.918	1.457	0.046	0.095
	31	17.508	34.444	10.607	0.308	17.506	35.268	7.827	0.222	0.530
	32	17.674	33.744	0.068	0.002	17.672	33.973	1.799	0.053	0.055
	33	18.690	33.184	13.034	0.393	18.686	30.309	10.328	0.341	0.734
	34	18.860	32.997	0.587	0.018	18.856	31.918	1.329	0.042	0.059
	35	19.030	36.496	12.702	0.348	19.028	33.749	8.661	0.257	0.605
	36	19.204	38.223	1.002	0.026	19.196	32.275	1.137	0.035	0.061
LCC EMS-1	37	19.536	26.232	8.947	0.341	19.532	22.893	7.442	0.325	0.666
	38	19.706	25.672	-0.305	-0.012	19.700	23.787	1.735	0.073	0.061
	39	19.880	25.719	9.196	0.358	19.880	24.234	5.967	0.246	0.604
	40	20.052	23.573	0.338	0.014	20.046	25.038	0.944	0.038	0.052
	41	21.360	23.013	8.885	0.386	21.354	25.395	7.677	0.302	0.688
	42	21.536	24.086	0.649	0.027	21.530	24.948	0.816	0.033	0.060
	43	21.718	23.993	9.300	0.388	21.716	24.412	6.822	0.279	0.667
	44	21.898	23.573	0.753	0.032	21.892	24.770	0.688	0.028	0.060
MLC EMS-	45	22.262	40.975	7.806	0.191	22.258	32.766	3.980	0.121	0.312
	46	22.446	39.856	0.504	0.013	22.440	34.062	0.538	-0.016	0.028
	47	22.630	35.657	4.052	0.114	22.626	31.158	1.757	0.056	0.170
	48	22.816	35.283	0.317	0.009	22.810	30.488	-0.424	-0.014	-0.005
	49	24.184	35.003	6.562	0.187	24.180	28.254	3.659	0.130	0.317
	50	24.374	34.957	0.131	0.004	24.370	28.254	-0.253	-0.009	-0.005
	51	24.562	36.590	5.670	0.155	24.560	31.158	1.949	0.063	0.218
	52	24.756	38.456	0.338	0.009	24.750	29.103	-0.702	-0.024	-0.015
SC EMS-1	53	25.136	28.285	9.777	0.346	25.132	22.000	6.887	0.313	0.659
	54	25.326	27.259	0.359	0.013	25.316	22.178	1.094	0.049	0.063
	55	25.520	28.285	8.864	0.313	25.516	22.625	6.224	0.275	0.588
	56	25.710	28.938	0.940	0.032	25.702	24.189	0.688	0.028	0.061
	57	27.146	25.486	8.906	0.349	27.144	23.295	6.587	0.283	0.632
	58	27.340	25.626	0.172	0.007	27.336	23.697	1.030	0.043	0.050
	59	27.540	24.366	8.823	0.362	27.540	22.178	5.690	0.257	0.619
	60	27.736	24.879	1.064	0.043	27.734	22.134	0.731	0.033	0.076



WA39_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	6.816	35.876	14.230	0.397	6.814	41.020	10.172	0.248	0.645
	2	7.014	30.318	-1.701	-0.056	7.012	33.137	1.020	0.031	-0.025
	3	7.562	31.476	12.597	0.400	7.562	38.145	10.086	0.264	0.665
	4	7.762	29.253	-1.259	-0.043	7.760	32.745	0.031	0.001	-0.042
LOCO 4901	5	8.120	33.467	10.788	0.322	8.118	41.935	8.776	0.209	0.532
	6	8.322	28.789	-1.502	-0.052	8.318	33.790	0.418	0.012	-0.040
	7	8.880	28.326	11.053	0.390	8.880	43.285	9.614	0.222	0.612
	8	9.088	28.650	-1.679	-0.059	9.084	33.354	0.697	0.021	-0.038
MC EMS-1	9	9.516	21.147	6.000	0.284	9.516	29.696	6.563	0.221	0.505
	10	9.650	23.787	-1.414	-0.059	9.646	29.957	1.170	0.039	-0.020
	11	11.000	18.044	4.257	0.236	10.998	28.781	5.467	0.190	0.426
	12	11.138	21.935	-1.988	-0.091	11.134	26.647	1.385	0.052	-0.039
FC EMS-1	13	11.482	24.112	7.522	0.312	11.480	30.915	6.219	0.201	0.513
	14	11.622	26.566	-0.443	-0.017	11.618	25.471	0.504	0.020	0.003
	15	12.330	27.863	8.449	0.303	12.328	25.297	6.455	0.255	0.558
	16	12.472	28.095	-0.774	-0.028	12.466	24.556	0.440	0.018	-0.010
T-5	17	12.774	21.147	7.743	0.366	12.772	24.600	7.315	0.297	0.664
	18	12.970	19.341	-1.811	-0.094	12.966	24.121	1.858	0.077	-0.017
	19	14.244	16.655	4.654	0.279	14.242	23.642	5.059	0.214	0.493
	20	14.448	17.952	-1.811	-0.101	14.444	24.731	1.299	0.053	-0.048
SC EMS-2	21	14.828	24.853	7.567	0.304	14.824	27.605	6.498	0.235	0.540
	22	14.978	26.659	-0.267	-0.010	14.972	24.905	-0.055	-0.002	-0.012
	23	15.136	24.343	7.920	0.325	15.132	28.258	5.746	0.203	0.529
	24	15.288	24.714	-0.818	-0.033	15.280	27.605	0.440	0.016	-0.017
	25	16.438	21.472	7.633	0.355	16.436	29.957	6.391	0.213	0.569
	26	16.594	22.815	-0.244	-0.011	16.592	26.342	0.203	0.008	-0.003
	27	16.758	20.545	6.088	0.296	16.752	27.562	5.059	0.184	0.480
	28	16.916	20.962	-0.951	-0.045	16.910	26.124	0.676	0.026	-0.019
TRIP-MLC	29	17.228	36.895	13.590	0.368	17.226	32.832	11.118	0.339	0.707
	30	17.394	38.145	1.344	0.035	17.388	32.396	-0.807	-0.025	0.010
	31	17.554	32.958	9.950	0.302	17.552	37.797	7.057	0.187	0.489
	32	17.722	35.042	-0.884	-0.025	17.716	34.226	0.203	0.006	-0.019
	33	18.738	32.078	12.818	0.400	18.734	33.093	9.012	0.272	0.672
	34	18.908	34.162	-0.730	-0.021	18.904	33.050	-1.107	-0.034	-0.055
	35	19.078	38.191	12.752	0.334	19.076	37.841	7.981	0.211	0.545
	36	19.252	39.442	-0.642	-0.016	19.244	33.659	-0.914	-0.027	-0.043
LCC EMS-1	37	19.584	25.779	7.500	0.291	19.582	24.556	7.272	0.296	0.587
	38	19.754	25.594	-0.686	-0.027	19.750	21.638	0.483	0.022	-0.004
	39	19.930	24.528	7.875	0.321	19.926	24.295	5.532	0.228	0.549
	40	20.102	23.834	-0.906	-0.038	20.096	26.081	0.074	0.003	-0.035
	41	21.408	23.232	8.096	0.348	21.408	27.083	6.885	0.254	0.603
	42	21.588	24.945	-0.531	-0.021	21.580	23.075	-0.549	-0.024	-0.045
	43	21.770	24.204	8.427	0.348	21.766	24.295	6.176	0.254	0.602
	44	21.950	23.695	-0.598	-0.025	21.942	24.731	-0.055	-0.002	-0.027
MLC EMS-	45	22.314	40.878	5.713	0.140	22.310	35.358	4.092	0.116	0.255
	46	22.498	39.534	-0.906	-0.023	22.492	33.442	0.096	0.003	-0.020
	47	22.680	36.941	1.830	0.050	22.678	32.222	0.869	0.027	0.077
	48	22.868	36.663	-1.282	-0.035	22.864	31.090	-0.828	-0.027	-0.062
	49	24.238	35.227	4.676	0.133	24.234	29.434	3.705	0.126	0.259
	50	24.430	35.274	-1.259	-0.036	24.422	27.562	-0.613	-0.022	-0.058
	51	24.616	37.867	4.169	0.110	24.616	31.002	2.029	0.065	0.176
	52	24.810	39.349	-1.326	-0.034	24.806	29.391	-1.494	-0.051	-0.085
SC EMS-1	53	25.188	27.122	8.206	0.303	25.188	23.729	6.498	0.274	0.576
	54	25.376	27.632	-0.818	-0.030	25.372	22.509	-0.076	-0.003	-0.033
	55	25.574	28.141	7.964	0.283	25.570	23.947	5.940	0.248	0.531
	56	25.764	28.095	-0.333	-0.012	25.754	22.596	-0.076	-0.003	-0.015
	57	27.202	25.918	7.390	0.285	27.202	25.427	6.412	0.252	0.537
	58	27.398	26.983	-0.531	-0.020	27.390	22.248	-0.076	-0.003	-0.023
	59	27.598	25.362	7.655	0.302	27.592	22.988	5.596	0.243	0.545
	60	27.796	24.297	-0.730	-0.030	27.786	22.988	0.182	0.008	-0.022

WA39 RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	6.852	36.318	15.381	0.424	6.852	34.579	11.786	0.341	0.764
	2	7.052	31.708	1.295	0.041	7.048	28.456	0.521	0.018	0.059
	3	7.600	34.342	14.283	0.416	7.600	34.219	13.016	0.380	0.796
	4	7.800	30.297	0.986	0.033	7.798	28.456	0.690	0.024	0.057
LOCO 4901	5	8.156	34.107	12.433	0.365	8.156	36.830	10.895	0.296	0.660
	6	8.360	28.228	1.006	0.036	8.358	30.572	0.415	0.014	0.049
	7	8.920	31.802	12.722	0.400	8.920	40.342	12.083	0.300	0.700
	8	9.126	28.275	0.813	0.029	9.122	29.356	0.902	0.031	0.059
MC EMS-1	9	9.554	19.996	8.097	0.405	9.554	25.304	8.052	0.318	0.723
	10	9.690	21.925	0.967	0.044	9.686	24.809	1.878	0.076	0.120
	11	11.038	22.583	7.249	0.321	11.038	28.771	8.031	0.279	0.600
	12	11.178	25.076	0.215	0.009	11.174	26.430	2.791	0.106	0.114
FC EMS-1	13	11.522	26.817	10.795	0.403	11.522	28.816	8.116	0.282	0.684
	14	11.662	28.134	2.451	0.087	11.658	25.169	0.712	0.028	0.115
	15	12.370	28.651	11.122	0.388	12.370	22.603	7.543	0.334	0.722
	16	12.512	28.933	2.297	0.079	12.510	22.332	0.584	0.026	0.106
T-5	17	12.814	20.984	9.928	0.473	12.814	22.873	9.176	0.401	0.874
	18	13.010	19.620	0.736	0.038	13.008	19.991	2.621	0.131	0.169
	19	14.288	17.551	6.497	0.370	14.288	23.098	6.631	0.287	0.657
	20	14.492	18.632	0.254	0.014	14.488	22.693	1.751	0.077	0.091
SC EMS-2	21	14.870	24.371	9.446	0.388	14.870	25.259	8.264	0.327	0.715
	22	15.020	27.146	2.586	0.095	15.018	21.477	-0.264	-0.012	0.083
	23	15.176	25.500	10.101	0.396	15.176	26.475	7.628	0.288	0.684
	24	15.328	27.099	2.489	0.092	15.326	25.349	0.542	0.021	0.113
	25	16.482	21.266	9.118	0.429	16.482	26.970	7.903	0.293	0.722
	26	16.640	23.477	2.566	0.109	16.634	22.918	0.457	0.020	0.129
	27	16.800	22.395	8.135	0.363	16.800	26.835	6.949	0.259	0.622
	28	16.958	22.207	1.526	0.069	16.956	25.574	0.839	0.033	0.102
TRIP-MLC	29	17.272	37.399	15.073	0.403	17.272	30.797	12.804	0.416	0.819
	30	17.438	38.434	3.742	0.097	17.434	30.122	0.627	0.021	0.118
	31	17.602	33.684	11.431	0.339	17.600	36.785	10.301	0.280	0.619
	32	17.766	36.365	1.950	0.054	17.762	31.518	0.669	0.021	0.075
	33	18.784	32.226	13.184	0.409	18.784	30.572	9.983	0.327	0.736
	34	18.956	34.907	2.181	0.062	18.952	30.302	-0.667	-0.022	0.040
	35	19.126	37.352	14.186	0.380	19.124	32.103	10.343	0.322	0.702
	36	19.298	38.105	2.605	0.068	19.294	30.032	0.075	0.003	0.071
LCC EMS-1	37	19.634	26.770	9.407	0.351	19.632	22.467	8.858	0.394	0.746
	38	19.804	27.193	1.776	0.065	19.798	20.712	0.987	0.048	0.113
	39	19.978	26.205	9.812	0.374	19.978	23.368	7.118	0.305	0.679
	40	20.152	25.029	2.181	0.087	20.148	23.818	0.139	0.006	0.093
	41	21.460	23.994	10.563	0.440	21.456	23.818	8.243	0.346	0.786
	42	21.640	27.099	2.875	0.106	21.632	22.918	-0.519	-0.023	0.083
	43	21.820	25.641	10.409	0.406	21.822	24.629	7.649	0.311	0.717
	44	22.000	23.947	2.162	0.090	21.996	24.809	0.118	0.005	0.095
MLC EMS-	45	22.364	41.021	8.386	0.204	22.362	32.238	5.082	0.158	0.362
	46	22.550	40.363	2.258	0.056	22.544	31.202	-0.561	-0.018	0.038
	47	22.732	36.788	4.802	0.131	22.732	29.897	1.645	0.055	0.186
	48	22.920	37.305	1.661	0.045	22.914	28.411	-0.519	-0.018	0.026
	49	24.288	35.095	7.403	0.211	24.288	27.330	4.361	0.160	0.371
	50	24.482	35.847	1.487	0.041	24.478	25.574	0.521	0.020	0.062
	51	24.670	37.729	5.804	0.154	24.672	28.231	2.536	0.090	0.244
	52	24.864	39.516	1.873	0.047	24.860	26.745	-0.392	-0.015	0.033
SC EMS-1	53	25.242	29.545	10.718	0.363	25.242	22.648	7.882	0.348	0.711
	54	25.434	29.827	2.008	0.067	25.428	21.927	-0.264	-0.012	0.055
	55	25.628	29.874	10.390	0.348	25.628	22.918	6.991	0.305	0.653
	56	25.818	29.921	3.048	0.102	25.812	21.612	-0.392	-0.018	0.084
	57	27.258	27.146	10.139	0.374	27.258	23.008	7.203	0.313	0.687
	58	27.454	29.074	2.412	0.083	27.448	21.747	-0.413	-0.019	0.064
	59	27.652	25.970	9.985	0.385	27.650	23.323	7.097	0.304	0.689
	60	27.846	25.829	2.817	0.109	27.844	21.972	-0.328	-0.015	0.094

WA39_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	6.890	35.099	14.092	0.401	6.888	37.100	11.435	0.308	0.710
	2	7.090	33.501	1.778	0.053	7.086	30.539	-0.477	-0.016	0.037
	3	7.638	33.031	12.270	0.371	7.636	34.038	11.993	0.352	0.724
	4	7.838	32.843	1.107	0.034	7.836	29.271	0.062	0.002	0.036
LOCO 49	5	8.196	33.642	10.793	0.321	8.194	37.799	9.896	0.262	0.583
	6	8.398	29.930	0.915	0.031	8.396	32.857	0.119	0.004	0.034
	7	8.962	33.595	12.001	0.357	8.958	39.505	10.589	0.268	0.625
	8	9.166	31.527	0.839	0.027	9.162	29.665	0.331	0.011	0.038
MC EMS	9	9.594	22.317	8.012	0.359	9.594	29.446	7.355	0.250	0.609
	10	9.728	23.163	0.839	0.036	9.726	26.691	2.294	0.086	0.122
	11	11.078	21.613	6.938	0.321	11.076	28.090	6.797	0.242	0.563
	12	11.216	26.030	0.589	0.023	11.214	24.941	1.967	0.079	0.102
FC EMS-	13	11.564	27.862	10.448	0.375	11.562	28.440	6.874	0.242	0.617
	14	11.700	28.379	1.817	0.064	11.700	25.860	1.389	0.054	0.118
	15	12.412	28.896	10.294	0.356	12.410	24.460	7.144	0.292	0.648
	16	12.552	29.178	1.836	0.063	12.552	23.717	1.620	0.068	0.131
T-5	17	12.854	22.317	9.892	0.443	12.856	23.192	8.433	0.364	0.807
	18	13.054	19.357	-0.715	-0.037	13.050	22.055	1.794	0.081	0.044
	19	14.334	18.276	6.305	0.345	14.328	23.935	5.700	0.238	0.583
	20	14.536	18.229	-0.773	-0.042	14.530	24.067	1.678	0.070	0.027
SC EMS-	21	14.914	26.547	9.354	0.352	14.914	26.778	7.201	0.269	0.621
	22	15.068	29.648	1.836	0.062	15.060	23.542	0.023	0.001	0.063
	23	15.222	27.439	10.026	0.365	15.220	28.790	6.874	0.239	0.604
	24	15.374	28.755	1.625	0.057	15.368	26.035	0.466	0.018	0.074
	25	16.528	23.257	9.028	0.388	16.526	29.096	6.701	0.230	0.619
	26	16.688	27.251	1.682	0.062	16.680	25.116	0.370	0.015	0.076
	27	16.848	24.103	8.108	0.336	16.846	28.003	5.392	0.193	0.529
	28	17.006	23.633	0.915	0.039	16.998	25.641	0.485	0.019	0.058
TRIP-ML	29	17.320	39.610	14.897	0.376	17.320	32.726	11.416	0.349	0.725
	30	17.488	38.905	3.121	0.080	17.480	34.257	1.620	0.047	0.128
	31	17.648	34.253	10.927	0.319	17.644	36.837	8.318	0.226	0.545
	32	17.818	38.388	2.009	0.052	17.808	32.332	0.851	0.026	0.079
	33	18.834	31.621	11.407	0.361	18.832	31.589	8.241	0.261	0.622
	34	19.006	36.273	1.241	0.034	19.000	30.670	0.273	0.009	0.043
	35	19.176	38.341	13.497	0.352	19.172	33.076	9.703	0.293	0.645
	36	19.348	39.657	2.987	0.075	19.342	31.589	0.831	0.026	0.102
LCC EMS	37	19.682	29.131	10.007	0.344	19.680	23.542	7.933	0.337	0.680
	38	19.848	29.554	1.145	0.039	19.850	23.367	1.101	0.047	0.086
	39	20.030	27.298	9.700	0.355	20.026	24.941	6.335	0.254	0.609
	40	20.196	25.936	1.548	0.060	20.196	24.854	0.119	0.005	0.064
	41	21.510	25.654	10.294	0.401	21.510	25.160	7.163	0.285	0.686
	42	21.686	29.836	1.855	0.062	21.686	22.929	-0.477	-0.021	0.041
	43	21.872	26.124	10.371	0.397	21.870	24.635	6.797	0.276	0.673
	44	22.052	25.654	1.644	0.064	22.048	24.504	-0.362	-0.015	0.049
MLC EM	45	22.416	42.852	7.724	0.180	22.414	34.913	4.488	0.129	0.309
	46	22.604	42.241	1.510	0.036	22.596	32.639	-0.554	-0.017	0.019
	47	22.786	37.730	5.001	0.133	22.782	31.064	1.851	0.060	0.192
	48					22.968	28.702	-0.785	-0.027	-0.027
	49					24.342	28.309	3.218	0.114	0.114
	50					24.530	26.647	-0.862	-0.032	-0.032
	51					24.720	29.183	2.140	0.073	0.073
	52					24.912	27.915	-0.785	-0.028	-0.028
SC EMS-	53					25.296	23.192	7.105	0.306	0.306
	54					25.482	22.098	-0.362	-0.016	-0.016
	55					25.680	23.935	6.432	0.269	0.269
	56					25.870	23.279	-0.362	-0.016	-0.016
	57					27.310	23.673	6.701	0.283	0.283
	58					27.506	22.361	0.293	0.013	0.013
	59					27.710	23.585	6.355	0.269	0.269
	60					27.898	21.792	0.100	0.005	0.005

WA39 RN001		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	6.928	37.146	15.435	0.416	6.924	33.857	13.061	0.386	0.801
	2	7.126	36.148	1.573	0.044	7.122	28.435	1.198	0.042	0.086
	3	7.676	37.356	13.945	0.373	7.672	34.879	12.459	0.357	0.731
	4	7.876	36.883	1.275	0.035	7.872	28.969	0.575	0.020	0.054
LOCO 49	5	8.234	35.728	12.871	0.360	8.230	35.190	12.029	0.342	0.702
	6	8.436	32.891	1.305	0.040	8.432	31.280	0.597	0.019	0.059
	7	8.998	37.829	15.047	0.398	8.996	36.790	11.578	0.315	0.712
	8	9.204	35.413	1.067	0.030	9.198	27.902	0.661	0.024	0.054
MC EMS	9	9.634	26.850	9.801	0.365	9.630	29.902	8.806	0.294	0.660
	10	9.768	27.743	1.722	0.062	9.764	25.236	0.833	0.033	0.095
	11	11.118	23.278	8.251	0.354	11.116	25.147	7.387	0.294	0.648
	12	11.258	28.584	1.156	0.040	11.254	22.480	1.026	0.046	0.086
FC EMS-	13	11.604	29.477	11.858	0.402	11.602	25.458	8.161	0.321	0.723
	14	11.744	29.319	3.481	0.119	11.740	24.347	-1.209	-0.050	0.069
	15	12.452	30.895	11.351	0.367	12.450	23.947	9.364	0.391	0.758
	16	12.596	33.416	2.885	0.086	12.590	22.036	-0.779	-0.035	0.051
T-5	17	12.898	24.434	10.934	0.447	12.896	21.769	9.558	0.439	0.887
	18	13.096	21.755	0.351	0.016	13.090	22.569	2.509	0.111	0.127
	19	14.374	20.284	7.327	0.361	14.372	21.725	7.301	0.336	0.697
	20	14.578	21.229	0.321	0.015	14.572	22.925	1.564	0.068	0.083
SC EMS-	21	14.958	28.426	10.814	0.380	14.954	25.769	8.075	0.313	0.694
	22	15.108	31.841	2.527	0.079	15.104	22.480	-0.951	-0.042	0.037
	23	15.266	28.584	11.202	0.392	15.262	25.813	8.290	0.321	0.713
	24	15.418	29.582	2.229	0.075	15.412	24.969	0.597	0.024	0.099
	25	16.574	25.747	10.367	0.403	16.570	26.569	7.538	0.284	0.686
	26	16.730	29.424	2.617	0.089	16.724	22.036	0.059	0.003	0.092
	27	16.892	23.488	8.847	0.377	16.890	25.458	6.356	0.250	0.626
	28	17.052	24.066	1.752	0.073	17.044	24.436	0.854	0.035	0.108
TRIP-ML	29	17.366	39.773	16.449	0.414	17.362	31.368	12.738	0.406	0.820
	30	17.530	40.981	3.392	0.083	17.526	30.035	0.468	0.016	0.098
	31	17.694	37.409	13.289	0.355	17.692	34.568	10.138	0.293	0.649
	32	17.860	42.136	2.885	0.068	17.856	29.458	0.231	0.008	0.076
	33	18.880	35.097	12.901	0.368	18.878	30.968	9.515	0.307	0.675
	34	19.052	39.142	2.229	0.057	19.048	28.169	-1.037	-0.037	0.020
	35	19.224	43.450	16.538	0.381	19.220	31.680	10.826	0.342	0.722
	36	19.396	43.345	2.974	0.069	19.392	28.435	-0.349	-0.012	0.056
LCC EMS	37	19.732	30.265	11.530	0.381	19.730	20.703	9.021	0.436	0.817
	38	19.902	30.370	2.170	0.071	19.896	19.858	0.790	0.040	0.111
	39	20.078	27.008	10.665	0.395	20.074	23.414	7.731	0.330	0.725
	40	20.250	28.163	2.229	0.079	20.246	23.014	-0.306	-0.013	0.066
	41	21.564	26.850	11.083	0.413	21.560	22.392	8.290	0.370	0.783
	42	21.742	30.002	2.408	0.080	21.734	20.392	-0.542	-0.027	0.054
	43	21.926	25.327	11.083	0.438	21.922	22.569	8.247	0.365	0.803
	44	22.104	26.167	2.378	0.091	22.098	22.792	-0.585	-0.026	0.065
MLC EM	45	22.470	44.658	9.533	0.213	22.466	31.946	5.453	0.171	0.384
	46	22.654	45.288	2.527	0.056	22.648	31.502	-0.843	-0.027	0.029
	47	22.838	41.191	6.432	0.156	22.834	29.591	2.445	0.083	0.239
	48	23.026	42.189	2.348	0.056	23.020	28.124	-1.101	-0.039	0.017
	49	24.398	39.615	8.042	0.203	24.394	26.702	4.680	0.175	0.378
	50	24.590	42.347	2.229	0.053	24.584	25.636	-1.101	-0.043	0.010
	51	24.780	43.817	7.386	0.169	24.774	27.102	2.917	0.108	0.276
	52	24.972	44.868	1.752	0.039	24.966	26.747	-0.908	-0.034	0.005
SC EMS-	53	25.352	30.580	11.440	0.374	25.350	21.236	7.925	0.373	0.747
	54	25.542	32.156	2.140	0.067	25.536	19.770	0.145	0.007	0.074
	55	25.738	31.420	11.321	0.360	25.736	22.036	8.032	0.365	0.725
	56	25.928	32.734	2.825	0.086	25.920	21.058	-0.499	-0.024	0.063
	57	27.372	29.529	10.934	0.370	27.370	21.014	7.645	0.364	0.734
	58	27.566	32.471	2.378	0.073	27.560	19.192	-0.499	-0.026	0.047
	59	27.768	25.957	10.367	0.399	27.762	21.236	7.645	0.360	0.759
	60	27.962	27.428	2.378	0.087	27.956	21.014	0.167	0.008	0.095

WA42_RN001		CRIB #1								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	1.546	22.599	9.483	0.420	1.544	38.584	11.464	0.297	0.717
	2	1.708	27.544	-1.346	-0.049	1.704	39.433	2.871	0.073	0.024
	3	2.148	22.365	9.794	0.438	2.146	37.065	11.955	0.323	0.760
	4	2.310	27.171	-0.848	-0.031	2.306	39.656	2.273	0.057	0.026
LOCO 4901	5	2.594	22.226	9.192	0.414	2.592	37.780	11.336	0.300	0.714
	6	2.756	27.731	-1.077	-0.039	2.752	39.612	2.016	0.051	0.012
	7	3.196	21.946	9.856	0.449	3.194	38.673	10.758	0.278	0.727
	8	3.356	27.451	-0.890	-0.032	3.352	40.594	2.444	0.060	0.028
MC EMS-1	9	3.692	19.286	6.371	0.330	3.688	26.656	5.222	0.196	0.526
	10	3.794	20.546	-0.869	-0.042	3.790	29.202	1.909	0.065	0.023
	11	4.816	20.126	6.454	0.321	4.814	27.371	5.115	0.187	0.508
	12	4.920	23.439	-0.931	-0.040	4.916	33.759	1.589	0.047	0.007
FC EMS-1	13	5.178	17.840	5.811	0.326	5.176	33.268	7.018	0.211	0.537
	14	5.282	19.706	-1.180	-0.060	5.278	33.223	3.021	0.091	0.031
	15	5.798	21.432	6.537	0.305	5.796	31.436	7.274	0.231	0.536
	16	5.902	25.585	-1.782	-0.070	5.898	33.178	2.957	0.089	0.019
T-5	17	6.124	20.033	7.035	0.351	6.122	22.546	6.227	0.276	0.627
	18	6.264	17.093	-0.558	-0.033	6.260	22.680	1.353	0.060	0.027
	19	7.162	16.767	5.873	0.350	7.160	23.260	5.693	0.245	0.595
	20	7.302	17.840	-0.600	-0.034	7.300	21.920	1.011	0.046	0.013
SC EMS-2	21	7.568	21.619	5.914	0.274	7.566	28.398	6.975	0.246	0.519
	22	7.670	21.432	-1.886	-0.088	7.668	31.034	2.807	0.090	0.002
	23	7.778	19.566	5.209	0.266	7.776	32.776	5.372	0.164	0.430
	24	7.880	19.566	-1.180	-0.060	7.876	34.653	2.529	0.073	0.013
	25	8.648	19.053	5.956	0.313	8.646	30.587	6.227	0.204	0.516
	26	8.750	19.986	-0.786	-0.039	8.746	30.587	1.866	0.061	0.022
	27	8.856	19.146	4.960	0.259	8.854	29.202	5.009	0.172	0.431
	28	8.958	17.513	-1.803	-0.103	8.956	32.195	3.042	0.094	-0.008
TRIP-MLC	29	9.186	29.690	10.229	0.345	9.184	38.539	10.481	0.272	0.616
	30	9.292	29.784	0.417	0.014	9.288	38.405	2.721	0.071	0.085
	31	9.396	29.644	5.292	0.179	9.394	40.282	5.009	0.124	0.303
	32	9.502	27.684	-2.757	-0.100	9.498	43.856	4.410	0.101	0.001
	33	10.138	27.171	8.694	0.320	10.136	39.388	9.155	0.232	0.552
	34	10.244	26.658	-2.093	-0.079	10.240	38.093	3.170	0.083	0.005
	35	10.348	29.224	8.881	0.304	10.346	38.852	8.429	0.217	0.521
	36	10.452	30.390	-2.259	-0.074	10.450	41.667	3.726	0.089	0.015
LCC EMS-1	37	10.680	17.887	4.773	0.267	10.678	29.158	5.137	0.176	0.443
	38	10.782	18.260	-1.678	-0.092	10.778	31.123	3.170	0.102	0.010
	39	10.888	20.873	5.375	0.258	10.886	29.470	5.094	0.173	0.430
	40	10.990	19.566	-1.471	-0.075	10.986	32.553	2.743	0.084	0.009
	41	11.754	18.260	5.894	0.323	11.752	29.917	7.253	0.242	0.565
	42	11.856	18.633	-1.554	-0.083	11.852	31.436	2.529	0.080	-0.003
	43	11.960	18.400	5.458	0.297	11.958	29.828	5.522	0.185	0.482
	44	12.062	17.513	-1.554	-0.089	12.058	32.642	2.615	0.080	-0.009
MLC EMS-	45	12.270	26.518	3.508	0.132	12.266	45.955	4.602	0.100	0.232
	46	12.374	27.264	-2.384	-0.087	12.370	44.794	3.234	0.072	-0.015
	47	12.476	26.331	0.293	0.011	12.474	42.471	-1.725	-0.041	-0.030
	48	12.582	26.751	-2.259	-0.084	12.578	40.550	2.166	0.053	-0.031
	49	13.338	24.745	2.969	0.120	13.336	40.907	4.581	0.112	0.232
	50	13.442	24.792	-2.342	-0.094	13.438	38.673	2.208	0.057	-0.037
	51	13.546	26.284	1.081	0.041	13.544	40.996	-2.002	-0.049	-0.008
	52	13.650	27.171	-2.487	-0.092	13.646	40.416	1.845	0.046	-0.046
SC EMS-1	53	13.856	21.152	5.458	0.258	13.854	27.683	6.548	0.237	0.495
	54	13.958	21.619	-2.010	-0.093	13.954	29.292	2.529	0.086	-0.007
	55	14.062	20.919	4.628	0.221	14.060	31.972	5.714	0.179	0.400
	56	14.164	20.593	-1.429	-0.069	14.160	33.848	2.465	0.073	0.003
	57	14.924	20.546	5.230	0.255	14.920	27.549	5.351	0.194	0.449
	58	15.026	20.453	-1.927	-0.094	15.022	30.587	2.315	0.076	-0.019
	59	15.130	18.260	4.919	0.269	15.128	30.096	5.479	0.182	0.451
	60	15.230	17.373	-1.429	-0.082	15.228	30.498	2.679	0.088	0.006

WA42_RN001		CRIB #2								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	1.576	23.886	9.886	0.414	1.574	41.331	10.021	0.242	0.656
	2	1.736	32.130	-1.544	-0.048	1.734	40.504	0.933	0.023	-0.025
	3	2.178	24.673	10.570	0.428	2.178	36.888	11.633	0.315	0.744
	4	2.340	30.972	-1.764	-0.057	2.336	41.462	0.375	0.009	-0.048
LOCO 4901	5	2.624	23.793	9.621	0.404	2.624	40.024	10.279	0.257	0.661
	6	2.786	31.157	-1.698	-0.055	2.782	41.462	0.224	0.005	-0.049
	7	3.224	23.052	10.129	0.439	3.224	41.592	9.721	0.234	0.673
	8	3.386	31.528	-1.875	-0.059	3.382	42.681	1.062	0.025	-0.035
MC EMS-1	9	3.720	21.338	5.672	0.266	3.718	31.531	5.359	0.170	0.436
	10	3.822	19.115	-1.080	-0.057	3.820	26.261	0.869	0.033	-0.023
	11	4.844	18.513	4.921	0.266	4.844	27.916	4.586	0.164	0.430
	12	4.948	20.921	-1.213	-0.058	4.946	30.181	0.675	0.022	-0.036
FC EMS-1	13	5.208	18.281	4.988	0.273	5.206	33.753	5.853	0.173	0.446
	14	5.310	19.671	-1.058	-0.054	5.308	31.183	1.277	0.041	-0.013
	15	5.828	21.940	5.230	0.238	5.826	31.836	6.004	0.189	0.427
	16	5.930	24.673	-1.875	-0.076	5.928	30.181	1.836	0.061	-0.015
T-5	17	6.154	17.448	6.444	0.369	6.152	23.474	6.197	0.264	0.633
	18	6.294	17.540	-1.147	-0.065	6.290	23.299	0.761	0.033	-0.033
	19	7.190	17.309	5.142	0.297	7.192	22.428	5.209	0.232	0.529
	20	7.332	17.124	-1.191	-0.070	7.328	24.345	0.611	0.025	-0.044
SC EMS-2	21	7.596	21.709	4.833	0.223	7.594	31.313	6.455	0.206	0.429
	22	7.700	21.709	-1.786	-0.082	7.696	29.441	1.513	0.051	-0.031
	23	7.806	20.227	4.612	0.228	7.804	35.669	4.844	0.136	0.364
	24	7.908	19.856	-1.786	-0.090	7.906	35.800	1.406	0.039	-0.051
	25	8.676	20.180	5.120	0.254	8.676	33.448	5.596	0.167	0.421
	26	8.778	20.597	-0.970	-0.047	8.776	31.488	0.955	0.030	-0.017
	27	8.884	19.347	4.392	0.227	8.884	30.704	4.758	0.155	0.382
	28	8.988	18.281	-2.007	-0.110	8.984	31.880	2.222	0.070	-0.040
TRIP-MLC	29	9.216	31.203	9.423	0.302	9.214	41.070	9.463	0.230	0.532
	30	9.322	29.443	-0.462	-0.016	9.318	38.064	1.105	0.029	0.013
	31	9.424	31.944	4.436	0.139	9.424	44.206	4.263	0.096	0.235
	32	9.530	27.498	-2.581	-0.094	9.526	44.206	2.631	0.060	-0.034
	33	10.168	27.267	7.657	0.281	10.166	41.418	7.572	0.183	0.464
	34	10.272	27.174	-1.786	-0.066	10.270	38.805	1.320	0.034	-0.032
	35	10.376	30.416	7.922	0.260	10.374	43.335	8.303	0.192	0.452
	36	10.482	29.582	-2.007	-0.068	10.478	41.418	1.728	0.042	-0.026
LCC EMS-1	37	10.708	18.745	3.686	0.197	10.708	31.183	4.693	0.151	0.347
	38	10.810	17.679	-1.676	-0.095	10.808	31.836	1.943	0.061	-0.034
	39	10.916	20.875	4.590	0.220	10.914	31.923	4.672	0.146	0.366
	40	11.018	19.300	-2.139	-0.111	11.016	32.228	1.922	0.060	-0.051
	41	11.782	19.671	4.966	0.252	11.780	33.709	6.262	0.186	0.438
	42	11.884	19.347	-1.786	-0.092	11.880	32.707	1.470	0.045	-0.047
	43	11.988	19.115	4.789	0.251	11.988	31.139	5.058	0.162	0.413
	44	12.090	17.124	-1.698	-0.099	12.088	32.185	1.492	0.046	-0.053
MLC EMS-	45	12.298	26.896	1.943	0.072	12.296	46.688	4.049	0.087	0.159
	46	12.404	26.387	-2.382	-0.090	12.400	46.166	1.857	0.040	-0.050
	47	12.506	27.452	-1.257	-0.046	12.502	42.899	-2.354	-0.055	-0.101
	48	12.610	26.989	-2.757	-0.102	12.606	43.509	1.084	0.025	-0.077
	49	13.366	27.452	1.413	0.051	13.364	43.422	4.156	0.096	0.147
	50	13.472	24.719	-2.603	-0.105	13.468	40.547	1.535	0.038	-0.067
	51	13.574	27.267	-0.507	-0.019	13.572	44.467	-2.676	-0.060	-0.079
	52	13.678	27.081	-3.287	-0.121	13.676	42.159	1.299	0.031	-0.091
SC EMS-1	53	13.884	21.987	4.193	0.191	13.882	30.050	6.197	0.206	0.397
	54	13.986	22.496	-1.919	-0.085	13.982	29.092	1.256	0.043	-0.042
	55	14.090	21.987	3.906	0.178	14.090	34.798	5.230	0.150	0.328
	56	14.192	20.227	-1.963	-0.097	14.190	34.711	1.427	0.041	-0.056
	57	14.952	22.450	4.237	0.189	14.952	31.096	4.972	0.160	0.349
	58	15.054	20.366	-2.117	-0.104	15.052	31.139	1.793	0.058	-0.046
	59	15.158	18.976	3.951	0.208	15.156	30.355	4.629	0.152	0.361
	60	15.260	16.892	-2.051	-0.121	15.256	31.618	2.179	0.069	-0.052

WA42_RN001		CRIB #3								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 4900	1	1.606	24.458	11.967	0.489	1.604	37.107	13.369	0.360	0.850
	2	1.766	32.078	1.253	0.039	1.764	35.126	1.276	0.036	0.075
	3	2.208	25.493	12.699	0.498	2.208	31.704	13.836	0.436	0.935
	4	2.368	31.325	1.214	0.039	2.366	35.711	0.788	0.022	0.061
LOCO 4901	5	2.654	23.941	11.196	0.468	2.654	35.441	12.414	0.350	0.818
	6	2.814	31.984	0.944	0.030	2.812	37.602	0.555	0.015	0.044
	7	3.254	23.094	11.581	0.501	3.254	37.467	12.414	0.331	0.833
	8	3.414	30.902	0.867	0.028	3.412	38.458	1.446	0.038	0.066
MC EMS-1	9	3.750	23.518	8.074	0.343	3.750	30.578	7.301	0.239	0.582
	10	3.854	19.896	1.098	0.055	3.852	25.130	1.255	0.050	0.105
	11	4.874	20.742	6.995	0.337	4.874	28.372	5.456	0.192	0.530
	12	4.978	20.037	0.752	0.038	4.976	26.616	1.276	0.048	0.085
FC EMS-1	13	5.236	19.661	7.303	0.371	5.236	32.109	7.768	0.242	0.613
	14	5.340	20.272	0.925	0.046	5.338	29.408	2.167	0.074	0.119
	15	5.856	23.800	8.036	0.338	5.856	29.543	7.047	0.239	0.576
	16	5.960	26.151	0.809	0.031	5.958	26.526	2.592	0.098	0.129
T-5	17	6.182	16.980	7.708	0.454	6.182	20.223	8.023	0.397	0.851
	18	6.324	17.544	0.732	0.042	6.322	20.808	1.404	0.067	0.109
	19	7.220	17.309	6.359	0.367	7.220	20.358	5.795	0.285	0.652
	20	7.360	17.779	0.540	0.030	7.358	21.033	1.043	0.050	0.080
SC EMS-2	21	7.626	21.824	7.072	0.324	7.626	29.948	8.511	0.284	0.608
	22	7.728	22.577	0.886	0.039	7.726	27.562	1.722	0.062	0.102
	23	7.834	18.626	6.032	0.324	7.834	32.514	7.047	0.217	0.541
	24	7.938	19.849	0.655	0.033	7.936	32.739	2.125	0.065	0.098
	25	8.706	20.225	7.072	0.350	8.706	29.363	7.132	0.243	0.593
	26	8.808	20.554	1.445	0.070	8.806	27.877	0.852	0.031	0.101
	27	8.914	19.284	6.051	0.314	8.914	29.408	6.538	0.222	0.536
	28	9.016	17.497	0.270	0.015	9.014	28.867	3.186	0.110	0.126
TRIP-MLC	29	9.244	30.479	11.369	0.373	9.244	36.927	11.947	0.324	0.697
	30	9.350	30.714	2.255	0.073	9.348	35.081	1.446	0.041	0.115
	31	9.454	30.761	6.301	0.205	9.452	41.114	6.707	0.163	0.368
	32	9.560	27.045	-0.636	-0.024	9.556	41.069	4.268	0.104	0.080
	33	10.196	26.810	9.539	0.356	10.196	37.287	10.017	0.269	0.624
	34	10.300	28.597	0.790	0.028	10.298	34.946	1.191	0.034	0.062
	35	10.404	30.573	10.213	0.334	10.404	40.979	10.505	0.256	0.590
	36	10.510	29.538	0.694	0.023	10.508	37.692	2.486	0.066	0.089
LCC EMS-1	37	10.738	19.143	6.205	0.324	10.736	28.417	6.729	0.237	0.561
	38	10.840	18.438	0.482	0.026	10.836	27.336	2.464	0.090	0.116
	39	10.944	20.460	6.802	0.332	10.944	29.498	7.047	0.239	0.571
	40	11.046	19.943	-0.289	-0.014	11.044	28.822	2.931	0.102	0.087
	41	11.810	18.814	6.841	0.364	11.810	29.363	7.938	0.270	0.634
	42	11.912	19.002	0.540	0.028	11.910	29.543	1.637	0.055	0.084
	43	12.018	18.861	6.976	0.370	12.018	29.858	7.216	0.242	0.612
	44	12.120	17.121	0.289	0.017	12.116	28.777	2.231	0.078	0.094
MLC EMS-	45	12.326	27.186	4.259	0.157	12.326	43.365	5.456	0.126	0.282
	46	12.432	26.904	-0.501	-0.019	12.428	42.870	3.101	0.072	0.054
	47	12.534	26.575	1.214	0.046	12.534	39.718	-2.458	-0.062	-0.016
	48	12.640	25.822	-0.983	-0.038	12.636	41.204	2.973	0.072	0.034
	49	13.394	25.117	3.931	0.157	13.394	37.827	5.265	0.139	0.296
	50	13.500	25.822	-0.867	-0.034	13.498	36.612	3.122	0.085	0.052
	51	13.602	27.280	1.773	0.065	13.602	38.683	1.658	0.043	0.108
	52	13.708	26.575	-1.349	-0.051	13.704	38.728	3.228	0.083	0.033
SC EMS-1	53	13.912	22.153	6.956	0.314	13.912	27.967	8.150	0.291	0.605
	54	14.014	21.213	0.482	0.023	14.012	24.770	1.446	0.058	0.081
	55	14.120	19.049	5.608	0.294	14.118	31.254	7.344	0.235	0.529
	56	14.220	21.495	0.578	0.027	14.218	31.839	2.295	0.072	0.099
	57	14.980	21.871	6.513	0.298	14.980	28.597	6.919	0.242	0.540
	58	15.082	19.755	0.251	0.013	15.080	28.147	2.146	0.076	0.089
	59	15.186	18.391	6.051	0.329	15.186	29.047	6.325	0.218	0.547
	60	15.288	16.368	-0.328	-0.020	15.286	29.228	3.483	0.119	0.099

WA42_RN001		CRIB #4								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	1.636	25.809	11.581	0.449	1.634	36.432	12.548	0.344	0.793
	2	1.798	35.959	0.341	0.009	1.794	36.651	1.059	0.029	0.038
	3	2.238	26.232	12.214	0.466	2.236	32.715	13.780	0.421	0.887
	4	2.400	33.985	0.322	0.009	2.396	35.951	0.751	0.021	0.030
LOCO 49	5	2.684	24.681	10.296	0.417	2.682	35.470	11.259	0.317	0.735
	6	2.844	35.959	0.073	0.002	2.842	39.581	0.789	0.020	0.022
	7	3.286	23.506	10.948	0.466	3.284	37.482	11.701	0.312	0.778
	8	3.446	32.293	0.150	0.005	3.442	37.875	1.386	0.037	0.041
MC EMS	9	3.780	21.768	7.496	0.344	3.778	30.659	6.717	0.219	0.563
	10	3.884	23.177	0.188	0.008	3.880	29.303	1.309	0.045	0.053
	11	4.906	24.399	7.035	0.288	4.904	32.671	5.986	0.183	0.472
	12	5.010	22.097	0.150	0.007	5.006	28.953	0.924	0.032	0.039
FC EMS-	13	5.268	20.452	7.189	0.351	5.266	34.158	7.602	0.223	0.574
	14	5.370	20.734	0.054	0.003	5.368	29.522	2.002	0.068	0.070
	15	5.888	26.467	7.956	0.301	5.886	31.359	6.544	0.209	0.509
	16	5.990	29.004	0.514	0.018	5.986	27.073	1.463	0.054	0.072
T-5	17	6.210	19.888	8.167	0.411	6.212	21.387	6.621	0.310	0.720
	18	6.354	18.713	0.054	0.003	6.350	21.912	1.328	0.061	0.063
	19	7.250	19.136	6.210	0.325	7.248	22.131	4.908	0.222	0.546
	20	7.390	20.076	-0.004	-0.000	7.388	21.475	0.943	0.044	0.044
SC EMS-	21	7.656	22.426	6.690	0.298	7.656	30.134	7.390	0.245	0.544
	22	7.760	23.600	0.284	0.012	7.756	28.035	1.020	0.036	0.048
	23	7.866	20.640	5.750	0.279	7.864	33.764	6.217	0.184	0.463
	24	7.968	20.405	0.169	0.008	7.964	32.890	1.405	0.043	0.051
	25	8.736	20.546	6.863	0.334	8.734	31.359	5.947	0.190	0.524
	26	8.838	21.251	0.706	0.033	8.834	29.435	0.578	0.020	0.053
	27	8.944	20.264	5.462	0.270	8.944	30.222	5.639	0.187	0.456
	28	9.046	19.324	-0.483	-0.025	9.044	30.659	1.829	0.060	0.035
TRIP-ML	29	9.274	29.615	10.737	0.363	9.272	38.575	10.450	0.271	0.633
	30	9.380	30.837	1.415	0.046	9.376	36.826	1.559	0.042	0.088
	31	9.484	31.307	6.498	0.208	9.482	42.949	6.909	0.161	0.368
	32	9.590	27.970	-0.829	-0.030	9.586	40.325	2.810	0.070	0.040
	33	10.226	26.749	9.030	0.338	10.224	38.969	9.026	0.232	0.569
	34	10.332	29.944	-0.004	-0.000	10.328	36.869	1.405	0.038	0.038
	35	10.434	31.166	9.912	0.318	10.434	41.243	10.008	0.243	0.561
	36	10.542	29.192	0.054	0.002	10.536	37.963	2.021	0.053	0.055
LCC EMS	37	10.770	20.076	5.923	0.295	10.766	30.265	5.986	0.198	0.493
	38	10.870	20.170	-0.387	-0.019	10.866	28.647	1.848	0.065	0.045
	39	10.976	21.533	6.460	0.300	10.974	30.834	6.274	0.203	0.503
	40	11.078	21.110	-0.407	-0.019	11.074	30.178	1.809	0.060	0.041
	41	11.842	18.102	6.326	0.349	11.840	31.534	7.044	0.223	0.573
	42	11.942	19.888	-0.023	-0.001	11.940	30.309	1.174	0.039	0.038
	43	12.050	19.935	6.728	0.338	12.046	31.228	7.217	0.231	0.569
	44	12.150	18.196	-0.100	-0.005	12.146	30.134	1.425	0.047	0.042
MLC EM	45	12.356	29.145	4.197	0.144	12.354	45.135	4.600	0.102	0.246
	46	12.462	29.427	-0.924	-0.031	12.458	45.135	2.271	0.050	0.019
	47	12.564	27.829	1.531	0.055	12.564	41.899	1.617	0.039	0.094
	48	12.670	27.876	-1.212	-0.043	12.666	42.030	1.848	0.044	0.000
	49	13.424	27.125	3.621	0.134	13.424	38.400	3.137	0.082	0.215
	50	13.530	28.064	-1.135	-0.040	13.526	38.138	1.598	0.042	0.001
	51	13.632	28.252	1.972	0.070	13.630	39.931	-2.059	-0.052	0.018
	52	13.736	28.487	-1.557	-0.055	13.734	41.199	1.732	0.042	-0.013
SC EMS-	53	13.944	22.942	6.613	0.288	13.942	29.478	7.371	0.250	0.538
	54	14.044	23.788	-0.407	-0.017	14.042	27.073	1.194	0.044	0.027
	55	14.150	19.982	5.156	0.258	14.148	33.196	6.505	0.196	0.454
	56	14.252	22.097	-0.061	-0.003	14.248	32.802	1.578	0.048	0.045
	57	15.014	21.298	5.961	0.280	15.010	28.822	5.466	0.190	0.470
	58	15.114	21.157	-0.714	-0.034	15.110	29.784	1.675	0.056	0.023
	59	15.218	18.948	5.443	0.287	15.216	30.878	5.755	0.186	0.474
	60	15.318	17.961	-0.579	-0.032	15.316	31.009	2.137	0.069	0.037



WA42_RN001		CRIB #5								
		TIME	VI	LI	L/V	TIME	VO	LO	L/V	AXLE SUM
LOCO 49	1	1.666	27.483	12.301	0.448	1.664	35.092	15.728	0.448	0.896
	2	1.826	38.146	1.480	0.039	1.824	35.269	1.201	0.034	0.073
	3	2.268	25.959	12.539	0.483	2.266	31.536	16.652	0.528	1.011
	4	2.430	35.520	1.450	0.041	2.426	35.892	0.105	0.003	0.044
LOCO 49	5	2.714	26.590	11.377	0.428	2.712	34.692	13.687	0.395	0.822
	6	2.874	35.835	1.152	0.032	2.870	36.069	0.040	0.001	0.033
	7	3.314	25.644	12.509	0.488	3.312	35.892	14.353	0.400	0.888
	8	3.474	35.205	1.122	0.032	3.470	37.314	1.373	0.037	0.069
MC EMS	9	3.810	21.757	8.098	0.372	3.808	26.115	5.950	0.228	0.600
	10	3.914	25.224	1.211	0.048	3.910	29.003	1.652	0.057	0.105
	11	4.934	23.753	8.247	0.347	4.932	30.736	7.605	0.247	0.595
	12	5.038	24.804	1.569	0.063	5.034	27.892	0.320	0.011	0.075
FC EMS-	13	5.298	22.020	8.753	0.398	5.294	31.181	8.787	0.282	0.679
	14	5.400	22.965	1.390	0.061	5.396	28.514	1.996	0.070	0.131
	15	5.916	27.745	9.499	0.342	5.914	29.137	8.851	0.304	0.646
	16	6.020	30.267	1.718	0.057	6.016	25.226	1.459	0.058	0.115
T-5	17	6.242	21.337	8.485	0.398	6.240	20.782	7.583	0.365	0.763
	18	6.382	20.286	1.241	0.061	6.380	22.293	1.007	0.045	0.106
	19	7.280	18.815	6.577	0.350	7.278	20.693	5.950	0.288	0.637
	20	7.420	20.601	0.973	0.047	7.418	20.604	0.836	0.041	0.088
SC EMS-	21	7.686	22.860	7.591	0.332	7.684	29.892	8.507	0.285	0.617
	22	7.788	25.434	1.450	0.057	7.784	26.959	0.771	0.029	0.086
	23	7.894	20.969	6.816	0.325	7.892	35.625	7.562	0.212	0.537
	24	7.998	21.547	1.241	0.058	7.994	32.692	1.287	0.039	0.097
	25	8.764	22.177	8.157	0.368	8.764	31.003	7.433	0.240	0.608
	26	8.868	23.280	1.867	0.080	8.864	27.226	0.234	0.009	0.089
	27	8.974	20.286	7.173	0.354	8.972	30.603	7.390	0.241	0.595
	28	9.076	20.128	0.854	0.042	9.072	28.959	2.361	0.082	0.124
TRIP-ML	29	9.304	31.948	11.913	0.373	9.302	37.714	12.139	0.322	0.695
	30	9.410	32.998	2.225	0.067	9.406	35.980	1.394	0.039	0.106
	31	9.512	31.895	8.694	0.273	9.512	42.913	9.818	0.229	0.501
	32	9.618	31.212	0.645	0.021	9.614	39.669	3.565	0.090	0.111
	33	10.256	28.796	10.512	0.365	10.252	37.091	10.592	0.286	0.651
	34	10.360	33.313	0.675	0.020	10.356	35.580	1.889	0.053	0.073
	35	10.464	32.158	11.466	0.357	10.462	40.602	12.376	0.305	0.661
	36	10.570	32.578	0.973	0.030	10.566	36.691	3.028	0.083	0.112
LCC EMS	37	10.796	20.391	6.995	0.343	10.794	28.337	6.960	0.246	0.589
	38	10.898	22.492	0.943	0.042	10.894	25.448	1.738	0.068	0.110
	39	11.004	23.648	7.889	0.334	11.002	31.270	8.099	0.259	0.593
	40	11.106	23.123	0.973	0.042	11.102	27.670	1.824	0.066	0.108
	41	11.870	20.391	7.561	0.371	11.868	31.625	8.851	0.280	0.651
	42	11.972	22.072	1.211	0.055	11.968	27.892	0.750	0.027	0.082
	43	12.076	19.603	7.919	0.404	12.074	30.603	9.023	0.295	0.699
	44	12.178	20.286	0.943	0.046	12.174	28.603	1.437	0.050	0.097
MLC EM	45	12.386	31.002	5.594	0.180	12.384	43.580	5.929	0.136	0.316
	46	12.490	31.843	0.287	0.009	12.486	41.447	2.512	0.061	0.070
	47	12.592	31.895	2.553	0.080	12.592	39.802	-2.517	-0.063	0.017
	48	12.698	30.267	-0.965	-0.032	12.694	40.247	2.856	0.071	0.039
	49	13.454	30.740	4.580	0.149	13.452	38.025	4.489	0.118	0.267
	50	13.558	31.002	-0.935	-0.030	13.556	36.069	2.404	0.067	0.037
	51	13.662	30.582	2.881	0.094	13.660	37.180	-2.087	-0.056	0.038
	52	13.766	30.319	-1.531	-0.051	13.762	39.669	2.942	0.074	0.024
SC EMS-	53	13.972	23.280	7.919	0.340	13.970	27.715	8.765	0.316	0.656
	54	14.074	26.012	0.794	0.031	14.070	25.315	1.136	0.045	0.075
	55	14.178	23.018	6.995	0.304	14.176	32.381	7.970	0.246	0.550
	56	14.280	23.648	1.092	0.046	14.276	29.937	1.287	0.043	0.089
	57	15.040	24.016	7.173	0.299	15.038	29.537	7.497	0.254	0.553
	58	15.142	22.913	0.615	0.027	15.138	29.137	2.039	0.070	0.097
	59	15.246	18.395	6.726	0.366	15.244	30.292	8.056	0.266	0.632
	60	15.346	19.235	0.764	0.040	15.342	28.026	2.361	0.084	0.124

**Wayside Data From**  
**Braking on Curved Track**



































W115_RN001		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.0078	36.3264	8.7707	0.2414	4.0078	33.6297	7.5010	0.2231	0.4645
	2	4.2891	38.9083	2.3735	0.0610	4.2891	27.4985	0.0620	0.0023	0.0633
	3	5.0664	35.7905	9.3168	0.2603	5.0664	29.6396	10.8980	0.3677	0.6280
	4	5.3477	40.4672	3.6997	0.0914	5.3438	25.2602	-0.3250	-0.0129	0.0786
LOCO 4901	5	5.8477	35.0111	8.6147	0.2461	5.8477	32.7051	7.2000	0.2202	0.4662
	6	6.1289	35.9854	2.3735	0.0660	6.1250	29.0556	-0.7550	-0.0260	0.0400
	7	6.9023	33.6471	8.2506	0.2452	6.9023	33.6297	8.3180	0.2473	0.4926
	8	7.1836	40.0287	3.3096	0.0827	7.1797	25.7954	-0.4540	-0.0176	0.0651
MC EMS-1	9	7.7695	27.1680	6.0662	0.2233	7.7695	25.8441	-0.7765	-0.0300	0.1932
	10	7.9531	22.9298	0.0330	0.0014	7.9492	25.0655	-0.1960	-0.0078	-0.0064
	11	9.7578	32.3318	6.8463	0.2118	9.7578	22.2919	3.5450	0.1590	0.3708
	12	9.9414	29.5550	1.0992	0.0372	9.9375	21.0754	0.0620	0.0029	0.0401
FC EMS-1	13	10.4023	29.6525	6.6383	0.2239	10.3984	28.0338	-0.4540	-0.0162	0.2077
	14	10.5820	25.6091	1.7493	0.0683	10.5781	26.1360	-0.5615	-0.0215	0.0468
	15	11.5117	34.7188	7.7565	0.2234	11.5078	21.9999	4.9640	0.2256	0.4491
	16	11.6953	30.4319	1.6193	0.0532	11.6914	23.3624	0.2985	0.0128	0.0660
T-5	17	12.0234	27.3141	6.3262	0.2316	12.0234	25.7954	4.2115	0.1633	0.3949
	18	12.2109	30.0422	2.0354	0.0678	12.2031	24.4329	-0.6690	-0.0274	0.0404
	19	12.4063	25.2681	5.8061	0.2298	12.3984	22.8758	3.9105	0.1710	0.4007
	20	12.5898	25.0245	1.7493	0.0699	12.5859	21.5620	0.2340	0.0109	0.0808
SC EMS-2	21	14.0156	26.4373	6.5603	0.2481	14.0117	21.1241	4.6845	0.2218	0.4699
	22	14.2070	29.0679	1.9834	0.0682	14.2031	20.9781	-0.2175	-0.0104	0.0579
	23	14.4102	26.8270	6.7163	0.2504	14.4063	21.9513	4.6200	0.2105	0.4608
	24	14.6016	27.3141	1.8014	0.0660	14.5938	21.0267	0.2340	0.0111	0.0771
	25	15.0273	38.3237	8.7447	0.2282	15.0273	32.3159	5.3725	0.1663	0.3944
	26	15.2305	41.1492	6.1962	0.1506	15.2266	29.7369	-0.7550	-0.0254	0.1252
	27	15.4258	35.4983	6.5343	0.1841	15.4297	28.3744	-0.5400	-0.0190	0.1650
	28	15.6328	35.4983	2.4515	0.0691	15.6289	24.9195	-0.1960	-0.0079	0.0612
TRIP-MLC	29	16.8789	34.1342	8.1726	0.2394	16.8828	27.0119	4.8565	0.1798	0.4192
	30	17.0898	39.2493	2.1134	0.0539	17.0859	27.7905	-1.2280	-0.0442	0.0097
	31	17.2969	39.1032	8.4586	0.2163	17.2969	30.3695	6.2970	0.2074	0.4237
	32	17.5117	39.6877	2.7635	0.0696	17.5078	26.4280	-0.8410	-0.0318	0.0378
	33	17.9648	27.6064	5.9361	0.2150	17.9648	22.6325	4.4265	0.1956	0.4106
	34	18.1719	29.4576	2.1394	0.0726	18.1680	21.9999	-0.7765	-0.0353	0.0373
	35	18.3906	25.6091	5.3120	0.2074	18.3867	20.8808	3.1795	0.1523	0.3597
	36	18.6016	24.8297	1.9054	0.0767	18.5977	19.3236	0.1910	0.0099	0.0866
LCC EMS-1	37	20.2148	27.0706	5.4941	0.2030	20.2188	19.9562	5.6950	0.2854	0.4883
	38	20.4336	29.5550	1.9574	0.0662	20.4297	19.9076	-0.2175	-0.0109	0.0553
	39	20.6602	29.0679	6.4042	0.2203	20.6602	20.2482	3.8030	0.1878	0.4081
	40	20.8828	27.9474	1.8534	0.0663	20.8789	19.1777	0.4060	0.0212	0.0875
	41	21.3438	39.5903	8.5106	0.2150	21.3438	32.6565	5.0500	0.1546	0.3696
	42	21.5742	42.7081	2.9976	0.0702	21.5703	34.3109	-1.0775	-0.0314	0.0388
	43	21.8047	35.4983	7.4964	0.2112	21.8008	28.2771	4.4050	0.1558	0.3670
	44	22.0430	35.3521	2.7115	0.0767	22.0391	25.4548	-0.6690	-0.0263	0.0504
MLC EMS-	45	23.7969	36.1803	7.7565	0.2144	23.7891	25.6981	6.1895	0.2409	0.4552
	46	24.0430	39.2493	1.9574	0.0499	24.0391	24.2383	-0.1960	-0.0081	0.0418
	47	24.2891	41.9286	8.5366	0.2036	24.2891	25.6494	5.6090	0.2187	0.4223
	48	24.5430	41.9286	2.0614	0.0492	24.5391	23.9950	0.2340	0.0098	0.0589
	49	25.0469	30.3832	6.2222	0.2048	25.0469	20.5401	-0.1100	-0.0054	0.1994
	50	25.3008	31.9421	2.6335	0.0825	25.2930	20.0049	-0.3680	-0.0184	0.0641
	51	25.5586	28.7269	5.8061	0.2021	25.5586	20.5888	2.6420	0.1283	0.3304
	52	25.8164	28.4346	2.0614	0.0725	25.8086	19.2750	-0.1530	-0.0079	0.0646
SC EMS-1	53	27.8008	29.0192	6.1442	0.2117	27.7969	19.8102	3.9105	0.1974	0.4091
	54	28.0742	31.2600	2.3735	0.0759	28.0703	19.0317	-0.1100	-0.0058	0.0702
	55	28.3594	30.0909	6.5083	0.2163	28.3633	18.9830	3.4590	0.1822	0.3985
	56	28.6406	30.0422	2.7375	0.0911	28.6328	17.5232	0.2340	0.0134	0.1045
	57	29.3711	26.5834	6.2742	0.2360	29.3711	17.5232	3.0075	0.1716	0.4077
	58	29.7695	24.5374	2.0094	0.0819	29.7617	14.5550	0.4920	0.0338	0.1157
	59	32.4688	24.8297	6.2222	0.2506	32.4648	17.2313	3.5880	0.2082	0.4588
	60	32.9180	25.7553	2.4255	0.0942	32.9102	14.9442	0.2985	0.0200	0.1142

**CRIB #2**

		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.1055	34.7082	9.6956	0.2794	4.1094	36.2019	8.6585	0.2392	0.5185
	2	4.3867	37.2177	3.8949	0.1047	4.3867	29.9561	0.3246	0.0108	0.1155
	3	5.1641	35.5286	10.0247	0.2822	5.1680	32.1181	9.3158	0.2901	0.5722
	4	5.4453	38.7621	3.8126	0.0984	5.4453	27.4577	0.5612	0.0204	0.1188
LOCO 4901	5	5.9453	33.4535	9.4488	0.2824	5.9453	36.2019	8.1327	0.2247	0.5071
	6	6.2266	35.0943	3.4423	0.0981	6.2266	30.9650	-0.1224	-0.0040	0.0941
	7	7.0039	32.5848	9.1402	0.2805	7.0039	36.8745	8.3693	0.2270	0.5075
	8	7.2852	38.8586	3.8126	0.0981	7.2813	27.6979	-0.0961	-0.0035	0.0946
MC EMS-1	9	7.8711	24.2841	6.1576	0.2536	7.8711	27.5058	2.9536	0.1074	0.3609
	10	8.0508	22.9328	1.5499	0.0676	8.0508	26.2566	0.5086	0.0194	0.0870
	11	9.8555	29.0618	7.2683	0.2501	9.8594	22.6052	4.7150	0.2086	0.4587
	12	10.0391	27.4210	1.5499	0.0565	10.0391	23.0376	0.7189	0.0312	0.0877
FC EMS-1	13	10.5000	27.9518	7.6386	0.2733	10.5000	29.5717	4.6887	0.1586	0.4318
	14	10.6836	23.9462	2.4755	0.1034	10.6797	27.0253	0.4823	0.0179	0.1212
	15	11.6094	32.7778	8.9962	0.2745	11.6133	24.6231	5.6615	0.2299	0.5044
	16	11.7969	30.4613	2.5989	0.0853	11.7930	25.0555	0.4035	0.0161	0.1014
T-5	17	12.1250	27.1314	8.4408	0.3111	12.1211	27.1214	5.0568	0.1865	0.4976
	18	12.3086	29.1583	2.7429	0.0941	12.3086	27.7460	-0.0961	-0.0035	0.0906
	19	12.5078	26.2627	7.9677	0.3034	12.5039	24.3828	4.2681	0.1750	0.4784
	20	12.6914	26.3110	3.5863	0.1363	12.6914	21.9325	0.5086	0.0232	0.1595
SC EMS-2	21	14.1211	29.0618	9.3665	0.3223	14.1211	23.7583	5.1357	0.2162	0.5385
	22	14.3125	29.0618	2.9281	0.1008	14.3125	23.2298	0.2983	0.0128	0.1136
	23	14.5117	27.9518	9.2636	0.3314	14.5117	22.7013	4.7939	0.2112	0.5426
	24	14.7031	28.0001	4.0800	0.1457	14.7031	19.9147	-0.0961	-0.0048	0.1409
	25	15.1328	38.0864	10.4978	0.2756	15.1328	34.5203	6.9760	0.2021	0.4777
	26	15.3359	41.7542	9.7162	0.2327	15.3320	34.1840	3.4531	0.1010	0.3337
	27	15.5352	34.2256	8.4820	0.2478	15.5352	30.2443	5.1619	0.1707	0.4185
	28	15.7383	35.7699	3.1132	0.0870	15.7344	26.0164	1.1396	0.0438	0.1308
TRIP-MLC	29	16.9922	35.9630	10.9298	0.3039	16.9922	30.9170	6.2924	0.2035	0.5075
	30	17.1992	40.1133	3.6480	0.0909	17.1992	30.0522	-0.7796	-0.0259	0.0650
	31	17.4063	37.2660	9.6339	0.2585	17.4063	30.3885	6.7131	0.2209	0.4794
	32	17.6211	40.1616	4.4708	0.1113	17.6172	26.7370	-0.1749	-0.0065	0.1048
	33	18.0742	27.0831	7.4535	0.2752	18.0742	24.1907	4.8728	0.2014	0.4766
	34	18.2852	27.1797	2.1464	0.0790	18.2813	25.7761	-0.2275	-0.0088	0.0701
	35	18.5039	24.1393	6.3015	0.2611	18.5039	23.1817	4.9253	0.2125	0.4735
	36	18.7148	24.6219	2.3315	0.0947	18.7109	19.2901	0.7189	0.0373	0.1320
LCC EMS-1	37	20.3320	27.2762	7.1038	0.2604	20.3320	21.3080	3.8474	0.1806	0.4410
	38	20.5547	29.4479	3.1955	0.1085	20.5508	22.0767	-0.3590	-0.0163	0.0923
	39	20.7813	29.4961	8.2146	0.2785	20.7852	20.6834	4.3207	0.2089	0.4874
	40	21.0039	27.6140	3.3806	0.1224	21.0000	19.2901	0.4823	0.0250	0.1474
	41	21.4648	40.2581	10.2716	0.2551	21.4648	36.7785	6.6079	0.1797	0.4348
	42	21.6992	41.2233	4.9234	0.1194	21.6953	35.4812	-0.3327	-0.0094	0.1101
	43	21.9297	35.9630	8.9139	0.2479	21.9297	30.1963	5.7140	0.1892	0.4371
	44	22.1641	35.8182	4.1828	0.1168	22.1602	25.2477	0.7452	0.0295	0.1463
MLC EMS-	45	23.9219	39.0516	10.1481	0.2599	23.9258	27.2655	5.0305	0.1845	0.4444
	46	24.1719	39.9686	3.8949	0.0975	24.1719	26.6890	-0.3064	-0.0115	0.0860
	47	24.4219	42.1403	10.2098	0.2423	24.4219	26.1605	4.9253	0.1883	0.4306
	48	24.6758	42.2368	4.5325	0.1073	24.6719	23.2298	0.4560	0.0196	0.1269
	49	25.1836	30.2683	7.8443	0.2592	25.1836	22.7013	3.6371	0.1602	0.4194
	50	25.4375	31.6196	4.1006	0.1297	25.4297	21.7884	-0.5430	-0.0249	0.1048
	51	25.6953	28.1931	6.7747	0.2403	25.6992	22.2208	3.9526	0.1779	0.4182
	52	25.9531	28.3862	2.3727	0.0836	25.9492	19.6744	0.5086	0.0259	0.1094
SC EMS-1	53	27.9492	29.8822	7.7620	0.2598	27.9492	21.6923	4.3995	0.2028	0.4626
	54	28.2227	30.7992	3.2983	0.1071	28.2227	19.8186	-0.3853	-0.0194	0.0877
	55	28.5117	30.4131	8.2763	0.2721	28.5078	20.8756	4.4784	0.2145	0.4867
	56	28.7891	30.3648	3.4423	0.1134	28.7891	17.7526	0.4560	0.0257	0.1391
	57	29.5273	24.4771	7.4740	0.3054	29.5273	19.6264	3.0587	0.1559	0.4612
	58	29.9297	24.8149	-2.8664	0.1155	29.9258	14.7738	0.2983	0.0202	0.1357
	59	32.6406	23.7532	7.6386	0.3216	32.6484	19.4342	3.6371	0.1872	0.5087
	60	33.0977	25.9249	3.6069	0.1391	33.0977	14.8219	0.2983	0.0201	0.1593

CRIB # 3										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.2070	33.6498	8.3018	0.2467	4.2070	38.6627	6.6605	0.1723	0.4190
	2	4.4922	36.1324	2.8953	0.0801	4.4883	31.7194	-1.9745	-0.0623	0.0179
	3	5.2656	35.3566	8.9506	0.2532	5.2656	33.1615	7.9922	0.2410	0.4942
	4	5.5469	37.3737	2.4431	0.0654	5.5430	30.5978	-1.5879	-0.0519	0.0135
LOCO 4901	5	6.0469	33.3912	8.4788	0.2539	6.0469	38.0752	7.3478	0.1930	0.4469
	6	6.3281	35.7704	2.7380	0.0765	6.3242	32.5739	-2.7478	-0.0844	-0.0078
	7	7.1016	32.6154	8.5377	0.2618	7.1016	37.1138	7.1975	0.1939	0.4557
	8	7.3867	38.8736	3.3278	0.0856	7.3828	29.9569	-2.8337	-0.0946	-0.0090
MC EMS-1	9	7.9727	23.0472	5.3921	0.2340	7.9688	32.2001	4.6199	0.1435	0.3774
	10	8.1523	22.7369	0.5951	0.0262	8.1484	27.5534	-0.4280	-0.0155	0.0106
	11	9.9570	30.2880	6.5717	0.2170	9.9570	24.9897	2.8370	0.1135	0.3305
	12	10.1406	27.3917	1.4208	0.0519	10.1367	23.8147	-0.9220	-0.0387	0.0132
FC EMS-1	13	10.6016	26.5642	6.1982	0.2333	10.6016	32.6274	4.1043	0.1258	0.3591
	14	10.7852	23.7713	2.6004	0.1094	10.7813	29.6364	-1.5664	-0.0529	0.0565
	15	11.7148	31.4259	7.3188	0.2329	11.7109	26.3784	4.8132	0.1825	0.4154
	16	11.9023	29.8743	2.0106	0.0673	11.8945	24.2420	-0.4924	-0.0203	0.0470
T-5	17	12.2266	28.2710	7.5547	0.2672	12.2266	30.9182	4.0399	0.1307	0.3979
	18	12.4141	30.2363	2.4825	0.0821	12.4102	29.7432	-0.9435	-0.0317	0.0504
	19	12.6094	26.6676	7.2009	0.2700	12.6055	24.1886	3.9110	0.1617	0.4317
	20	12.7969	27.2366	2.6987	0.0991	12.7930	22.4260	-0.6642	-0.0296	0.0695
SC EMS-2	21	14.2266	29.8743	8.6557	0.2897	14.2266	25.0431	4.9421	0.1973	0.4871
	22	14.4180	28.3744	2.3055	0.0813	14.4141	25.0431	0.3883	0.0155	0.0968
	23	14.6211	28.7364	8.4591	0.2944	14.6211	23.7613	4.8776	0.2053	0.4997
	24	14.8125	29.3054	3.2492	0.1109	14.8125	21.0374	-1.0724	-0.0510	0.0599
	25	15.2422	40.0114	10.1302	0.2532	15.2383	36.9002	7.4337	0.2015	0.4546
	26	15.4453	41.8733	7.2205	0.1724	15.4414	36.3126	1.0327	0.0284	0.2009
	27	15.6445	36.0807	7.1615	0.1985	15.6445	30.5978	2.1711	0.0710	0.2695
	28	15.8516	37.5288	2.1482	0.0572	15.8438	26.8057	-0.9220	-0.0344	0.0228
TRIP-MLC	29	17.1016	37.7874	10.5037	0.2780	17.1055	34.2831	6.9612	0.2031	0.4810
	30	17.3125	43.1146	2.1089	0.0489	17.3125	31.8796	-1.8027	-0.0566	-0.0076
	31	17.5234	41.6664	8.6557	0.2077	17.5234	32.7342	4.4265	0.1352	0.3430
	32	17.7383	43.5801	3.6817	0.0845	17.7266	34.2297	-2.3182	-0.0677	0.0168
	33	18.1914	29.2536	6.8666	0.2347	18.1914	27.2864	3.2237	0.1181	0.3529
	34	18.4023	28.3227	1.4601	0.0516	18.3984	27.6602	-1.2012	-0.0434	0.0081
	35	18.6211	26.5642	5.8247	0.2193	18.6172	22.1590	2.8370	0.1280	0.3473
	36	18.8320	26.8228	1.9713	0.0735	18.8242	19.2749	-0.8361	-0.0434	0.0301
LCC EMS-1	37	20.4570	29.2536	6.1785	0.2112	20.4531	23.6011	3.3740	0.1430	0.3542
	38	20.6797	30.3915	1.8730	0.0616	20.6719	23.8681	-0.7931	-0.0332	0.0284
	39	20.9063	30.2880	7.1615	0.2365	20.9102	21.1976	3.6103	0.1703	0.4068
	40	21.1289	29.3054	2.2859	0.0780	21.1250	20.5033	-0.6857	-0.0334	0.0446
	41	21.5898	41.9768	9.6977	0.2310	21.5898	40.9059	6.4457	0.1576	0.3886
	42	21.8242	44.4076	2.5611	0.0577	21.8203	38.3422	-1.1798	-0.0308	0.0269
	43	22.0547	37.3220	8.6164	0.2309	22.0547	30.0103	4.6843	0.1561	0.3870
	44	22.2930	37.6840	2.5808	0.0685	22.2852	26.8591	-1.0724	-0.0399	0.0286
MLC EMS-	45	24.0586	40.3217	8.7933	0.2181	24.0586	29.1023	5.2428	0.1802	0.3982
	46	24.3086	41.6664	1.0473	0.0251	24.3047	28.8352	-0.5783	-0.0201	0.0051
	47	24.5586	43.6318	8.9309	0.2047	24.5547	28.0341	4.5125	0.1610	0.3657
	48	24.8125	44.3559	1.4012	0.0316	24.8086	25.6841	-0.7072	-0.0275	0.0041
	49	25.3203	32.2017	6.6897	0.2077	25.3203	24.3488	2.7941	0.1148	0.3225
	50	25.5742	31.9431	2.0499	0.0642	25.5703	24.7227	-0.9220	-0.0373	0.0269
	51	25.8398	30.2880	6.0409	0.1995	25.8398	21.6783	2.1497	0.0992	0.2986
	52	26.0977	31.2190	1.8140	0.0581	26.0898	19.9158	-1.0079	-0.0506	0.0075
SC EMS-1	53	28.1016	31.4259	6.7683	0.2154	28.1016	23.3874	3.7821	0.1617	0.3771
	54	28.3789	32.0465	1.5191	0.0474	28.3672	21.6249	-0.8361	-0.0387	0.0087
	55	28.6680	31.9431	7.0436	0.2205	28.6680	21.3578	2.6867	0.1258	0.3463
	56	28.9492	32.1500	2.4628	0.0766	28.9453	18.0998	-0.7287	-0.0403	0.0363
	57	29.6914	24.2885	6.6307	0.2730	29.6914	20.6635	2.5793	0.1248	0.3978
	58	30.0938	25.4264	1.3225	0.0520	30.0898	15.6430	0.3668	0.0235	0.0755
	59	32.8320	23.7713	6.6504	0.2798	32.8281	20.4499	3.1377	0.1534	0.4332
	60	33.2852	25.9436	1.7157	0.0661	33.2852	15.9634	-0.4924	-0.0308	0.0353





















W118_RN001		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.1719	39.0826	11.2972	0.2891	4.1719	30.0644	9.1838	0.3055	0.5945
	2	4.7148	42.9310	5.0040	0.1166	4.7070	22.5708	-1.6522	-0.0732	0.0434
	3	6.2070	38.5954	10.6731	0.2765	6.1992	25.7823	8.6033	0.3337	0.6102
	4	6.7422	44.1002	4.7439	0.1076	6.7383	21.7435	-1.5232	-0.0701	0.0375
LOCO 4901	5	7.6953	37.5237	9.6069	0.2560	7.6953	29.5778	7.1198	0.2407	0.4967
	6	8.2305	40.7876	5.0040	0.1227	8.2266	23.4953	-2.2112	-0.0941	0.0286
	7	9.7109	36.7929	9.2948	0.2526	9.7109	29.9671	7.0983	0.2369	0.4895
	8	10.2500	44.8309	5.0560	0.1128	10.2422	21.7435	-2.1037	-0.0968	0.0160
MC EMS-1	9	11.3711	29.1447	7.4744	0.2565	11.3711	23.4953	3.4218	0.1456	0.4021
	10	11.7227	29.0473	1.8314	0.0631	11.7188	20.3324	-1.9102	-0.0940	-0.0309
	11	15.1758	33.3829	8.4366	0.2527	15.1797	18.1427	3.6798	0.2028	0.4556
	12	15.5273	32.6035	1.5713	0.0482	15.5234	18.4833	-1.5662	-0.0847	-0.0366
FC EMS-1	13	16.3984	31.9702	7.1884	0.2249	16.3984	23.4466	3.0348	0.1294	0.3543
	14	16.7500	30.1677	3.4957	0.1159	16.7422	22.5221	-2.3402	-0.1039	0.0120
	15	18.5078	35.1854	7.9165	0.2250	18.5078	18.5806	3.8518	0.2073	0.4323
	16	18.8594	36.2084	3.4957	0.0965	18.8516	18.9699	-1.2867	-0.0678	0.0287
T-5	17	19.4648	28.9498	6.5123	0.2250	19.4688	22.8627	2.0888	0.0914	0.3163
	18	19.8203	33.8213	3.9638	0.1172	19.8125	20.1864	-2.3617	-0.1170	0.0002
	19	20.1797	28.0730	6.5383	0.2329	20.1836	20.0404	-0.7922	-0.0395	0.1934
	20	20.5352	29.5831	3.8858	0.1314	20.5273	18.7753	-2.1252	-0.1132	0.0182
SC EMS-2	21	23.1875	29.8754	7.4484	0.2493	23.1875	18.9213	2.4328	0.1286	0.3779
	22	23.5430	31.8240	3.0796	0.0968	23.5313	19.0672	-1.5877	-0.0833	0.0135
	23	23.9063	30.7036	7.9425	0.2587	23.9063	19.9918	1.3578	0.0679	0.3266
	24	24.2617	31.2882	3.5997	0.1151	24.2539	18.1914	-2.1682	-0.1192	-0.0041
	25	25.0273	40.0081	10.6471	0.2661	25.0273	28.4100	5.3568	0.1886	0.4547
	26	25.3984	45.2694	6.7463	0.1490	25.3906	26.5609	-1.6952	-0.0638	0.0852
	27	25.7617	38.4493	9.0087	0.2343	25.7539	24.2739	2.5403	0.1047	0.3390
	28	26.1289	39.0826	3.7037	0.0948	26.1172	22.5708	-1.6522	-0.0732	0.0216
TRIP-MLC	29	28.3711	37.0852	9.2948	0.2506	28.3750	23.1060	3.0778	0.1332	0.3838
	30	28.7383	42.3465	3.5477	0.0838	28.7344	24.8091	-2.4477	-0.0987	-0.0149
	31	29.1094	41.6157	10.2570	0.2465	29.1094	26.8528	4.9913	0.1859	0.4324
	32	29.4844	43.9053	4.3798	0.0998	29.4727	24.5172	-1.7382	-0.0709	0.0289
	33	30.2617	28.6088	6.9803	0.2440	30.2617	19.5052	2.9703	0.1523	0.3963
	34	30.6250	31.0933	2.6375	0.0848	30.6133	19.2619	-1.9532	-0.1014	-0.0166
	35	31.0039	26.5628	6.3042	0.2373	31.0039	17.9481	1.7233	0.0960	0.3334
	36	31.3711	27.8294	2.9496	0.1060	31.3633	16.6829	-1.5232	-0.0913	0.0147
LCC EMS-1	37	34.1328	27.5371	7.0064	0.2544	34.1328	18.2887	3.4648	0.1895	0.4439
	38	34.5000	30.4600	2.7155	0.0892	34.4961	18.5806	-1.3942	-0.0750	0.0141
	39	34.8867	30.8497	8.0726	0.2617	34.8867	17.7048	2.6908	0.1520	0.4137
	40	35.2578	30.5574	3.4957	0.1144	35.2500	17.5588	-1.5017	-0.0855	0.0289
	41	36.0156	43.0772	10.6471	0.2472	36.0117	27.8747	4.6903	0.1683	0.4154
	42	36.3984	47.1692	3.8597	0.0818	36.3906	29.6265	-2.2972	-0.0775	0.0043
	43	36.7813	39.0826	8.9047	0.2278	36.7773	24.8091	2.9918	0.1206	0.3484
	44	37.1641	39.2774	3.6777	0.0936	37.1563	23.0574	-1.6522	-0.0717	0.0220
MLC EMS-	45	39.9844	40.4466	9.9449	0.2459	39.9805	22.3761	5.0343	0.2250	0.4709
	46	40.3750	42.5900	2.8195	0.0662	40.3672	21.5976	-1.6307	-0.0755	-0.0093
	47	40.7617	45.4155	9.9449	0.2190	40.7578	23.1547	4.3678	0.1886	0.4076
	48	41.1563	45.6591	3.2876	0.0720	41.1445	21.8895	-1.1147	-0.0509	0.0211
	49	41.9336	30.8984	6.8243	0.2209	41.9375	20.2351	2.3253	0.1149	0.3358
	50	42.3203	33.3342	3.2356	0.0971	42.3125	18.8239	-1.4372	-0.0764	0.0207
	51	42.7227	30.1677	6.6683	0.2210	42.7148	18.2887	2.0458	0.1119	0.3329
	52	43.1055	30.3139	2.8716	0.0947	43.0977	18.0940	-1.5017	-0.0830	0.0117
SC EMS-1	53	46.0430	29.4370	7.1104	0.2416	46.0430	18.6780	3.6798	0.1970	0.4386
	54	46.4414	32.3112	2.8195	0.0873	46.4297	18.4347	-1.5447	-0.0838	0.0035
	55	46.8477	30.7523	7.9425	0.2583	46.8477	18.9213	3.5078	0.1854	0.4437
	56	47.2461	31.5804	3.1836	0.1008	47.2383	17.0235	-0.9642	-0.0566	0.0442
	57	48.2734	23.9809	6.4602	0.2694	48.2734	18.1427	3.5078	0.1934	0.4627
	58	48.8242	27.2448	2.7935	0.1025	48.8164	13.3254	-0.8567	-0.0643	0.0382
	59	52.3984	23.5425	6.2262	0.2645	52.4023	17.9481	4.0668	0.2266	0.4911
	60	52.9688	26.9525	3.2876	0.1220	52.9609	14.3472	-1.1362	-0.0792	0.0428

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.3672	38.3890	13.1339	0.3421	4.3633	32.2807	9.1257	0.2827	0.6248
	2	4.9063	41.6707	6.1196	0.1469	4.9023	25.1700	-0.1547	-0.0062	0.1407
	3	6.3906	38.8233	13.1339	0.3383	6.3945	28.4371	9.2308	0.3246	0.6629
	4	6.9297	42.6841	6.4693	0.1516	6.9297	22.8639	-0.1810	-0.0079	0.1436
LOCO 4901	5	7.8867	37.3755	11.6529	0.3118	7.8867	31.6561	8.4947	0.2683	0.5801
	6	8.4219	38.7268	5.6465	0.1458	8.4180	26.4673	-0.2862	-0.0108	0.1350
	7	9.9023	36.2173	11.2827	0.3115	9.9023	32.0405	8.7576	0.2733	0.5849
	8	10.4375	42.8772	6.3458	0.1480	10.4336	23.4885	-0.1810	-0.0077	0.1403
MC EMS-1	9	11.5625	26.6618	7.8886	0.2959	11.5625	26.1309	5.3925	0.2064	0.5022
	10	11.9102	29.7987	3.5689	0.1198	11.9063	19.6449	-0.0758	-0.0039	0.1159
	11	15.3672	32.8873	9.8222	0.2987	15.3672	19.3566	4.9456	0.2555	0.5542
	12	15.7148	32.8391	2.8284	0.0861	15.7148	19.2125	-0.2336	-0.0122	0.0740
FC EMS-1	13	16.5898	31.4878	8.4851	0.2695	16.5898	25.6505	4.3409	0.1692	0.4387
	14	16.9375	29.8952	4.4328	0.1483	16.9375	24.2091	-0.2862	-0.0118	0.1365
	15	18.6992	34.5282	9.0817	0.2630	18.6992	21.5186	5.0244	0.2335	0.4965
	16	19.0508	34.7212	4.2271	0.1218	19.0469	20.3175	-0.0758	-0.0037	0.1180
T-5	17	19.6563	28.5439	7.9503	0.2785	19.6602	25.2181	4.2883	0.1701	0.4486
	18	20.0078	34.9143	5.4202	0.1552	20.0078	22.7678	-0.8645	-0.0380	0.1173
	19	20.3750	28.1096	8.0120	0.2850	20.3750	21.9030	4.1043	0.1874	0.4724
	20	20.7227	29.4609	5.0705	0.1721	20.7227	19.3086	0.0030	0.0002	0.1723
SC EMS-2	21	23.3789	29.8470	9.5342	0.3194	23.3789	20.8940	4.9456	0.2367	0.5561
	22	23.7344	31.7291	4.3917	0.1384	23.7266	20.5577	-0.1810	-0.0088	0.1296
	23	24.1016	29.8470	9.0817	0.3043	24.0977	21.8069	4.8667	0.2232	0.5274
	24	24.4570	30.3778	4.5768	0.1507	24.4531	19.0683	-0.1547	-0.0081	0.1425
	25	25.2188	40.9950	12.7226	0.3103	25.2227	30.7913	7.2854	0.2366	0.5469
	26	25.5898	46.9793	9.2257	0.1964	25.5859	29.1097	-0.5228	-0.0180	0.1784
	27	25.9492	37.3273	10.5833	0.2835	25.9531	26.7555	5.3136	0.1986	0.4821
	28	26.3203	38.9681	4.5357	0.1164	26.3164	23.0561	0.7392	0.0321	0.1485
TRIP-MLC	29	28.5625	39.3059	12.0232	0.3059	28.5625	26.3231	5.1296	0.1949	0.5008
	30	28.9336	43.2632	5.1528	0.1191	28.9297	26.5153	-0.7068	-0.0267	0.0924
	31	29.3047	40.8985	11.7558	0.2874	29.3047	30.1187	7.9689	0.2646	0.5520
	32	29.6797	44.9041	5.6465	0.1258	29.6719	24.3533	0.0030	0.0001	0.1259
	33	30.4570	28.4474	8.6908	0.3055	30.4609	21.6147	4.6038	0.2130	0.5185
	34	30.8203	31.1982	3.4455	0.1104	30.8164	23.2482	-0.4176	-0.0180	0.0925
	35	31.1992	27.1927	8.2589	0.3037	31.1992	19.3566	4.9193	0.2541	0.5579
	36	31.5664	27.5787	3.4043	0.1234	31.5625	17.3868	0.5288	0.0304	0.1539
LCC EMS-1	37	34.3320	27.1927	8.6497	0.3181	34.3359	19.9331	4.9456	0.2481	0.5662
	38	34.6992	31.3913	3.6306	0.1157	34.6992	20.5097	-0.2073	-0.0101	0.1056
	39	35.0859	30.3778	10.0690	0.3315	35.0859	20.3655	6.1286	0.3009	0.6324
	40	35.4570	30.2813	4.5151	0.1491	35.4531	18.4918	0.0819	0.0044	0.1535
	41	36.2148	45.7245	13.3191	0.2913	36.2188	31.6081	7.2854	0.2305	0.5218
	42	36.6016	46.1588	5.1939	0.1125	36.5977	31.8483	-0.4439	-0.0139	0.0986
	43	36.9805	38.6785	10.6656	0.2758	36.9844	26.9477	5.9183	0.2196	0.4954
	44	37.3672	38.9681	4.3711	0.1122	37.3594	23.3924	0.7129	0.0305	0.1426
MLC EMS-	45	40.1875	40.8502	12.0643	0.2953	40.1875	24.0650	6.5755	0.2732	0.5686
	46	40.5781	42.2015	3.8569	0.0914	40.5742	24.1131	-0.1284	-0.0053	0.0861
	47	40.9648	44.5663	11.6529	0.2615	40.9688	25.2181	6.3652	0.2524	0.5139
	48	41.3594	44.8076	4.0626	0.0907	41.3594	22.6717	0.7654	0.0338	0.1244
	49	42.1406	30.8122	8.9582	0.2907	42.1445	22.4795	4.3409	0.1931	0.4838
	50	42.5234	33.6595	3.7129	0.1103	42.5234	20.8940	-0.2336	-0.0112	0.0991
	51	42.9258	29.7022	7.9915	0.2691	42.9297	20.7979	4.9981	0.2403	0.5094
	52	43.3125	30.0400	3.4043	0.1133	43.3086	18.8281	0.0293	0.0016	0.1149
SC EMS-1	53	46.2578	30.3778	8.6497	0.2847	46.2617	20.6538	4.7878	0.2318	0.5166
	54	46.6563	31.4878	3.2809	0.1042	46.6484	19.9331	-0.2599	-0.0130	0.0912
	55	47.0625	30.3296	9.5342	0.3144	47.0625	20.3655	5.2610	0.2583	0.5727
	56	47.4609	30.5226	3.4249	0.1122	47.4570	17.9152	0.7392	0.0413	0.1535
	57	48.4922	22.4149	7.4361	0.3318	48.4961	21.2304	4.3935	0.2069	0.5387
	58	49.0469	28.1579	3.9392	0.1399	49.0391	13.0147	0.4500	0.0346	0.1745
	59	52.6250	23.9592	7.9092	0.3301	52.6211	19.2605	4.5249	0.2349	0.5650
	60	53.1953	27.7235	4.5768	0.1651	53.1914	15.0325	-0.1547	-0.0103	0.1548

CRIB #3										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	4.5586	37.8511	11.9404	0.3155	4.5547	34.7679	7.3924	0.2126	0.5281
	2	5.1016	42.8679	3.7619	0.0878	5.0938	27.0768	-1.3714	-0.0507	0.0371
	3	6.5859	38.3683	12.5696	0.3276	6.5859	29.9610	9.4975	0.3170	0.6446
	4	7.1250	43.1265	4.3517	0.1009	7.1172	25.8484	-1.1566	-0.0448	0.0562
LOCO 4901	5	8.0781	37.2304	11.3900	0.3059	8.0703	32.9519	7.8220	0.2374	0.5433
	6	8.6172	40.7991	3.5456	0.0869	8.6055	28.5723	-2.0158	-0.0706	0.0164
	7	10.0938	35.5754	10.8002	0.3036	10.0898	34.8213	7.2635	0.2086	0.5122
	8	10.6328	43.6954	3.8012	0.0870	10.6250	26.3291	-2.0588	-0.0782	0.0088
MC EMS-1	9	11.7578	29.2656	8.4016	0.2871	11.7500	26.2223	4.1704	0.1590	0.4461
	10	12.1055	31.6447	2.6609	0.0841	12.0977	21.6824	-1.9943	-0.0920	-0.0079
	11	15.5625	33.5583	9.4436	0.2814	15.5586	21.0949	4.4711	0.2120	0.4934
	12	15.9141	35.2651	2.6609	0.0755	15.9063	19.6528	-1.3714	-0.0698	0.0057
FC EMS-1	13	16.7852	31.0240	7.7725	0.2505	16.7852	28.9996	3.4831	0.1201	0.3706
	14	17.1367	28.8001	3.7815	0.1313	17.1289	26.3291	-2.2306	-0.0847	0.0466
	15	18.8945	34.5410	8.6572	0.2506	18.8945	22.6972	4.0845	0.1800	0.4306
	16	19.2422	35.9892	3.3097	0.0920	19.2383	21.4154	-1.2425	-0.0580	0.0339
T-5	17	19.8555	29.3690	7.7332	0.2633	19.8477	27.0234	3.6764	0.1360	0.3994
	18	20.2070	34.9548	4.4696	0.1279	20.1953	25.5813	-2.1447	-0.0838	0.0440
	19	20.5703	29.0587	7.2220	0.2485	20.5703	22.7506	3.3542	0.1474	0.3960
	20	20.9219	30.8689	4.6073	0.1493	20.9141	19.9199	-1.5647	-0.0786	0.0707
SC EMS-2	21	23.5742	31.0240	9.5223	0.3069	23.5742	22.5904	4.5356	0.2008	0.5077
	22	23.9297	32.5239	3.9585	0.1217	23.9219	21.3620	-1.1566	-0.0541	0.0676
	23	24.3008	30.2482	8.6376	0.2856	24.2891	22.9108	3.8267	0.1670	0.4526
	24	24.6523	31.4378	4.1551	0.1322	24.6445	19.7062	-1.4788	-0.0750	0.0571
	25	25.4180	42.6093	12.9038	0.3028	25.4180	33.8599	7.0487	0.2082	0.5110
	26	25.7891	46.5400	8.9718	0.1928	25.7852	31.7769	-0.8129	-0.0256	0.1672
	27	26.1523	39.1958	10.1907	0.2600	26.1523	27.6109	2.9890	0.1083	0.3683
	28	26.5195	41.4715	4.2534	0.1026	26.5117	24.4063	-1.2640	-0.0518	0.0508
TRIP-MLC	29	28.7656	40.6440	11.6652	0.2870	28.7656	29.4803	4.7933	0.1626	0.4496
	30	29.1406	46.1780	3.9978	0.0866	29.1289	28.1984	-2.2736	-0.0806	0.0059
	31	29.5078	44.1092	11.0951	0.2515	29.5078	29.6405	5.8244	0.1965	0.4480
	32	29.8789	47.6262	4.7252	0.0992	29.8711	25.0472	-1.9299	-0.0771	0.0222
	33	30.6602	30.0414	8.1657	0.2718	30.6602	24.6200	3.9556	0.1607	0.4325
	34	31.0273	31.0758	2.8968	0.0932	31.0195	25.1541	-1.6721	-0.0665	0.0267
	35	31.4063	28.6449	7.6152	0.2659	31.3984	19.6528	3.7623	0.1914	0.4573
	36	31.7695	29.4724	3.4473	0.1170	31.7656	17.7301	-1.1996	-0.0677	0.0493
LCC EMS-1	37	34.5391	29.4724	8.1264	0.2757	34.5352	22.3233	4.7074	0.2109	0.4866
	38	34.9102	32.8860	2.6806	0.0815	34.8984	21.5222	-0.9633	-0.0448	0.0368
	39	35.2930	31.2309	9.1094	0.2917	35.2969	20.9347	4.6430	0.2218	0.5135
	40	35.6641	31.9550	4.0568	0.1270	35.6523	19.1721	-1.1351	-0.0592	0.0677
	41	36.4258	46.1780	12.6875	0.2748	36.4258	35.1951	7.1776	0.2039	0.4787
	42	36.8086	48.0399	4.0175	0.0836	36.8047	34.2872	-1.7581	-0.0513	0.0324
	43	37.1914	40.3854	9.8565	0.2441	37.1836	26.9166	4.3423	0.1613	0.4054
	44	37.5781	41.4715	3.3687	0.0812	37.5664	23.8722	-1.0707	-0.0449	0.0364
MLC EMS-	45	40.4023	42.7128	11.5472	0.2704	40.4023	25.3677	5.8888	0.2321	0.5025
	46	40.7930	44.2644	2.2087	0.0499	40.7852	25.9018	-1.0492	-0.0405	0.0094
	47	41.1797	45.7642	10.8788	0.2377	41.1758	24.6734	4.2778	0.1734	0.4111
	48	41.5742	47.5227	2.4447	0.0514	41.5664	23.7654	-0.7270	-0.0306	0.0209
	49	42.3555	31.8516	7.8118	0.2453	42.3555	24.0325	3.5260	0.1467	0.3920
	50	42.7422	35.3685	2.5233	0.0713	42.7344	23.1245	-1.0492	-0.0454	0.0260
	51	43.1445	31.6447	7.4973	0.2369	43.1445	20.5608	3.3971	0.1652	0.4021
	52	43.5313	32.2653	2.5823	0.0800	43.5195	19.5460	-1.1996	-0.0614	0.0187
SC EMS-1	53	46.4805	31.5412	8.2444	0.2614	46.4727	22.1631	4.9007	0.2211	0.4825
	54	46.8750	32.9894	2.1891	0.0664	46.8633	20.5074	-1.1996	-0.0585	0.0079
	55	47.2852	31.2309	8.6769	0.2778	47.2891	21.0949	4.6645	0.2211	0.4990
	56	47.6836	32.4722	2.7592	0.0850	47.6758	18.3710	-0.8774	-0.0478	0.0372
	57	48.7148	22.1799	7.1434	0.3221	48.7109	21.4154	2.7313	0.1275	0.4496
	58	49.2656	29.0587	2.4447	0.0841	49.2578	13.7243	-0.5122	-0.0373	0.0468
	59	52.8516	23.9901	7.3597	0.3068	52.8477	18.9585	4.1275	0.2177	0.5245
	60	53.4297	27.3519	2.6609	0.0973	53.4180	16.1278	-0.8344	-0.0517	0.0455



W118_RN002		CRIB #1								
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.2500	39.2362	13.5516	0.3454	4.2539	29.7668	13.0166	0.4373	0.7827
	2	4.8047	43.7667	5.8801	0.1344	4.7969	21.7866	-2.2484	-0.1032	0.0311
	3	6.3164	38.5055	13.4736	0.3499	6.3164	26.1660	13.2316	0.5057	0.8556
	4	6.8672	44.7897	5.6721	0.1266	6.8555	20.2295	-1.9474	-0.0963	0.0304
LOCO 4901	5	7.8359	37.2876	12.5374	0.3362	7.8398	29.1829	11.8986	0.4077	0.7440
	6	8.3828	40.6002	5.2560	0.1295	8.3750	23.3437	-2.6999	-0.1157	0.0138
	7	9.8867	36.7030	12.2514	0.3338	9.8906	29.8155	11.0601	0.3710	0.7048
	8	10.4375	44.9358	5.4120	0.1204	10.4336	21.0567	-2.3774	-0.1129	0.0075
MC EMS-1	9	11.5820	28.8112	8.3506	0.2898	11.5820	22.9544	4.8036	0.2093	0.4991
	10	11.9414	29.3470	1.8754	0.0639	11.9336	19.9375	-1.8399	-0.0923	-0.0284
	11	15.4688	33.3417	8.7927	0.2637	15.4727	18.2831	4.5456	0.2486	0.5123
	12	15.8320	33.1955	2.1354	0.0643	15.8242	17.8451	-1.6249	-0.0911	-0.0267
FC EMS-1	13	16.7266	31.6854	7.4664	0.2356	16.7305	24.3169	3.8576	0.1586	0.3943
	14	17.0898	31.2469	3.5397	0.1133	17.0781	21.7866	-2.7644	-0.1269	-0.0136
	15	18.8867	34.9493	8.2466	0.2360	18.8906	18.6237	5.1046	0.2741	0.5101
	16	19.2500	35.5826	3.3056	0.0929	19.2461	18.8670	-1.7539	-0.0930	-0.0001
T-5	17	19.8750	29.4445	7.1804	0.2439	19.8711	22.1759	2.5031	0.1129	0.3567
	18	20.2344	33.3904	3.4877	0.1045	20.2305	20.0835	-2.9579	-0.1473	-0.0428
	19	20.6055	27.8369	7.0504	0.2533	20.6094	19.8402	1.8366	0.0926	0.3458
	20	20.9727	29.6881	3.7477	0.1262	20.9648	18.8670	-2.6784	-0.1420	-0.0157
SC EMS-2	21	23.7031	29.7368	7.7785	0.2616	23.7031	18.7210	3.3846	0.1808	0.4424
	22	24.0664	32.5135	2.8636	0.0881	24.0586	18.9156	-1.9044	-0.1007	-0.0126
	23	24.4453	30.6136	8.3246	0.2719	24.4453	19.8402	1.7721	0.0893	0.3612
	24	24.8125	31.1982	3.6177	0.1160	24.8008	18.3804	-2.5924	-0.1410	-0.0251
	25	25.6055	40.9899	11.0811	0.2703	25.6016	28.0151	5.7066	0.2037	0.4740
	26	25.9844	45.5204	6.6083	0.1452	25.9766	26.3120	-1.5819	-0.0601	0.0851
	27	26.3594	38.1645	9.5989	0.2515	26.3555	24.0736	3.6856	0.1531	0.4046
	28	26.7383	39.5285	3.7217	0.0942	26.7266	22.3218	-1.9474	-0.0872	0.0069
TRIP-MLC	29	29.0547	37.2389	9.9889	0.2682	29.0547	23.1977	4.5026	0.1941	0.4623
	30	29.4375	42.3540	3.3577	0.0793	29.4297	24.4629	-2.7859	-0.1139	-0.0346
	31	29.8164	41.8181	10.6911	0.2557	29.8164	26.4093	5.1906	0.1965	0.4522
	32	30.2031	44.5461	4.1378	0.0929	30.1914	23.5870	-2.6784	-0.1136	-0.0207
	33	31.0078	29.1035	7.5705	0.2601	31.0078	19.3536	3.1481	0.1627	0.4228
	34	31.3867	31.2469	2.5515	0.0817	31.3828	19.1589	-2.4204	-0.1263	-0.0447
	35	31.7773	26.7652	6.7383	0.2518	31.7773	17.7965	2.2666	0.1274	0.3791
	36	32.1563	27.7395	3.0196	0.1089	32.1484	16.2393	-1.9904	-0.1226	-0.0137
LCC EMS-1	37	35.0234	27.6907	7.3364	0.2649	35.0234	18.0884	3.3846	0.1871	0.4521
	38	35.4063	30.9546	2.6555	0.0858	35.4023	18.2831	-2.1839	-0.1195	-0.0337
	39	35.8047	31.2469	9.0267	0.2889	35.8086	17.7478	3.9221	0.2210	0.5099
	40	36.1953	30.7111	3.2796	0.1068	36.1836	17.3099	-2.0979	-0.1212	-0.0144
	41	36.9805	43.3283	11.1852	0.2582	36.9766	27.7231	4.9541	0.1787	0.4369
	42	37.3828	47.2742	3.7997	0.0804	37.3750	29.2316	-2.9794	-0.1019	-0.0215
	43	37.7773	38.7978	9.1568	0.2360	37.7773	24.3656	3.7501	0.1539	0.3899
	44	38.1797	39.6746	3.4617	0.0873	38.1719	22.5165	-2.1624	-0.0960	-0.0088
MLC EMS-	45	41.1211	40.3566	10.5610	0.2617	41.1250	22.6138	6.5236	0.2885	0.5502
	46	41.5352	42.9872	2.7335	0.0636	41.5234	21.1053	-1.8614	-0.0882	-0.0246
	47	41.9414	45.7640	10.8471	0.2370	41.9414	23.0031	5.8141	0.2528	0.4898
	48	42.3516	46.2024	3.1236	0.0676	42.3398	21.3973	-1.3669	-0.0639	0.0037
	49	43.1680	31.2956	8.2726	0.2643	43.1680	20.5214	4.2446	0.2068	0.4712
	50	43.5703	33.3417	2.8636	0.0859	43.5664	18.5750	-1.7754	-0.0956	-0.0097
	51	43.9883	30.0778	7.4404	0.2474	43.9961	18.2831	3.3201	0.1816	0.4290
	52	44.3984	30.1265	2.5515	0.0847	44.3906	18.0398	-1.6679	-0.0925	-0.0078
SC EMS-1	53	47.5039	29.2009	7.4664	0.2557	47.4961	18.5264	4.4596	0.2407	0.4964
	54	47.9180	32.2699	2.6815	0.0831	47.9063	18.2831	-1.9474	-0.1065	-0.0234
	55	48.3477	31.2469	9.1828	0.2939	48.3477	18.6723	4.4381	0.2377	0.5316
	56	48.7734	31.4418	2.5515	0.0812	48.7578	17.0179	-1.1304	-0.0664	0.0147
	57	49.8672	23.9884	7.5445	0.3145	49.8555	19.0616	5.6636	0.2971	0.6116
	58	50.4531	27.3010	3.5917	0.1316	50.4414	13.2711	-1.3454	-0.1014	0.0302
	59	54.2656	24.1833	7.2844	0.3012	54.2695	16.7746	5.6636	0.3376	0.6389
	60	54.8789	27.7882	3.4357	0.1236	54.8633	13.9037	-1.7324	-0.1246	-0.0010

CRIB #2										
		TIME	VIB1	LIB1	L/V	TIME	VOB1	LOB1	L/V	AXLE SUM
LOCO 4900	1	4.4414	38.3834	14.6941	0.3828	4.4453	33.2028	12.5788	0.3789	0.7617
	2	4.9961	41.9547	6.6512	0.1585	4.9961	24.7469	-0.4348	-0.0176	0.1410
	3	6.5078	37.2252	14.6941	0.3947	6.5117	29.0709	13.4989	0.4643	0.8591
	4	7.0586	43.5955	6.7952	0.1559	7.0586	22.0564	-0.3296	-0.0150	0.1409
LOCO 4901	5	8.0234	36.8874	13.7273	0.3721	8.0234	32.1939	11.9215	0.3703	0.7424
	6	8.5703	39.2038	5.8490	0.1492	8.5703	25.9000	-0.7766	-0.0300	0.1192
	7	10.0820	35.3430	12.9251	0.3657	10.0820	32.3380	11.5534	0.3573	0.7230
	8	10.6289	43.3059	6.3838	0.1474	10.6289	23.2575	-0.6977	-0.0300	0.1174
MC EMS-1	9	11.7773	27.1388	8.7288	0.3216	11.7773	26.0921	5.7959	0.2221	0.5438
	10	12.1328	29.4071	2.9486	0.1003	12.1328	19.8463	0.0384	0.0019	0.1022
	11	15.6641	32.6405	10.0864	0.3090	15.6641	19.8463	5.7959	0.2920	0.6011
	12	16.0234	33.5574	3.5657	0.1063	16.0195	18.5491	-0.3296	-0.0178	0.0885
FC EMS-1	13	16.9180	32.3992	8.9962	0.2777	16.9258	25.7078	4.9021	0.1907	0.4684
	14	17.2813	29.4071	3.8537	0.1311	17.2773	24.6988	-0.3559	-0.0144	0.1166
	15	19.0781	33.9435	9.5310	0.2808	19.0859	22.3927	6.0851	0.2718	0.5525
	16	19.4453	34.9087	4.3474	0.1245	19.4414	19.8943	-0.3296	-0.0166	0.1080
T-5	17	20.0703	28.9727	9.2225	0.3183	20.0664	24.7469	4.7706	0.1928	0.5111
	18	20.4297	35.0535	5.3759	0.1534	20.4258	22.3927	-1.3287	-0.0593	0.0940
	19	20.8047	27.9110	8.8934	0.3186	20.8086	22.0083	5.3490	0.2430	0.5617
	20	21.1641	29.6966	5.3965	0.1817	21.1641	19.0295	-0.4348	-0.0229	0.1589
SC EMS-2	21	23.8984	30.4205	10.3744	0.3410	23.9023	20.6150	5.7696	0.2799	0.6209
	22	24.2656	32.7853	4.3063	0.1314	24.2578	19.9904	-0.6188	-0.0310	0.1004
	23	24.6406	30.2275	9.8602	0.3262	24.6445	21.9603	5.5593	0.2532	0.5794
	24	25.0117	30.9514	4.8205	0.1557	25.0039	18.9334	-0.5663	-0.0299	0.1258
	25	25.8008	42.3407	13.7685	0.3252	25.8047	30.4162	8.3986	0.2761	0.6013
	26	26.1836	47.1667	9.2431	0.1960	26.1797	28.5424	1.1426	0.0400	0.2360
	27	26.5547	37.5630	10.9709	0.2921	26.5586	26.6206	6.0325	0.2266	0.5187
	28	26.9414	38.7212	4.6559	0.1202	26.9336	23.2575	-0.0930	-0.0040	0.1162
TRIP-MLC	29	29.2578	39.0108	12.1229	0.3108	29.2539	26.1882	5.6645	0.2163	0.5271
	30	29.6406	43.4025	5.4582	0.1258	29.6328	26.0921	-1.0132	-0.0388	0.0869
	31	30.0195	42.2925	12.2874	0.2905	30.0195	29.4553	7.9254	0.2691	0.5596
	32	30.4023	45.5742	5.7873	0.1270	30.3984	23.8821	-0.1719	-0.0072	0.1198
	33	31.2109	28.6832	8.8728	0.3093	31.2188	21.8642	5.0072	0.2290	0.5384
	34	31.5859	30.8549	3.0721	0.0996	31.5859	22.7290	-0.6188	-0.0272	0.0723
	35	31.9805	27.0906	8.1734	0.3017	31.9844	19.6061	5.0598	0.2581	0.5598
	36	32.3594	27.9110	3.4012	0.1219	32.3555	17.0116	0.0384	0.0023	0.1241
LCC EMS-1	37	35.2305	27.7180	9.0785	0.3275	35.2305	19.7982	4.9547	0.2503	0.5778
	38	35.6133	31.6270	3.4835	0.1101	35.6133	20.2306	-0.5400	-0.0267	0.0835
	39	36.0117	30.6618	10.7241	0.3498	36.0117	20.0385	6.5321	0.3260	0.6757
	40	36.3984	30.6618	4.6354	0.1512	36.3984	18.4530	-0.3822	-0.0207	0.1305
	41	37.1914	45.3329	13.9947	0.3087	37.1914	31.8095	8.2409	0.2591	0.5678
	42	37.5898	46.4911	5.0468	0.1086	37.5859	31.5693	-0.6977	-0.0221	0.0865
	43	37.9883	39.1556	11.4440	0.2923	37.9922	26.2843	6.6109	0.2515	0.5438
	44	38.3906	39.3969	4.3885	0.1114	38.3867	23.0653	0.4065	0.0176	0.1290
MLC EMS-	45	41.3359	40.8447	13.8507	0.3391	41.3398	23.9301	8.7141	0.3642	0.7033
	46	41.7461	42.1960	3.6069	0.0855	41.7461	24.0742	-0.2245	-0.0093	0.0762
	47	42.1523	44.8020	12.5754	0.2807	42.1563	25.0351	7.3996	0.2956	0.5763
	48	42.5664	45.0916	3.7714	0.0836	42.5625	22.4407	0.6168	0.0275	0.1111
	49	43.3867	30.8549	10.6830	0.3462	43.3906	22.5368	6.2692	0.2782	0.6244
	50	43.7891	33.7022	3.3806	0.1003	43.7852	20.7111	-0.3034	-0.0147	0.0857
	51	44.2109	30.1310	9.3665	0.3109	44.2109	20.6150	6.3480	0.3079	0.6188
	52	44.6172	30.3240	3.0926	0.1020	44.6133	18.7893	0.1173	0.0062	0.1082
SC EMS-1	53	47.7266	30.5653	10.0659	0.3293	47.7266	20.5670	6.2954	0.3061	0.6354
	54	48.1445	31.6753	3.2160	0.1015	48.1406	19.7022	-0.3822	-0.0194	0.0821
	55	48.5781	30.5170	11.3001	0.3703	48.5781	20.4709	6.8212	0.3332	0.7035
	56	49.0000	30.8066	3.3189	0.1077	48.9922	17.8764	0.4328	0.0242	0.1319
	57	50.0898	24.3880	8.8728	0.3638	50.0938	20.3267	5.9537	0.2929	0.6567
	58	50.6797	28.1040	4.3268	0.1540	50.6797	12.9278	0.5116	0.0396	0.1935
	59	54.4961	24.0502	8.8522	0.3681	54.5156	18.8373	5.9537	0.3161	0.6841
	60	55.1172	27.8627	4.7999	0.1723	55.1172	15.1379	-0.4874	-0.0322	0.1401

CRIB #3										
		TIME	VIBI	LIBI	L/V	TIME	VOBI	LOBI	L/V	AXLE SUM
LOCO 4900	1	4.6445	38.0202	14.7926	0.3891	4.6445	35.4807	11.6893	0.3295	0.7185
	2	5.1953	42.5715	3.9796	0.0935	5.1914	26.7214	-0.9410	-0.0352	0.0583
	3	6.7109	37.7616	15.0286	0.3980	6.7070	30.6204	13.3432	0.4358	0.8338
	4	7.2578	43.8128	3.9403	0.0899	7.2461	24.6384	-1.0484	-0.0426	0.0474
LOCO 4901	5	8.2227	36.7789	13.5147	0.3675	8.2266	33.1840	10.8301	0.3264	0.6938
	6	8.7695	40.6062	3.6651	0.0903	8.7578	27.0953	-1.6498	-0.0609	0.0294
	7	10.2773	35.4859	13.0429	0.3676	10.2773	35.7477	10.0353	0.2807	0.6483
	8	10.8281	43.6059	3.5864	0.0823	10.8203	25.8135	-1.4565	-0.0564	0.0258
MC EMS-1	9	11.9766	29.2795	8.8750	0.3031	11.9727	25.9203	4.8586	0.1874	0.4906
	10	12.3359	31.5035	2.4068	0.0764	12.3242	21.6475	-1.6069	-0.0742	0.0022
	11	15.8633	33.2102	9.5434	0.2874	15.8672	21.1134	4.8586	0.2301	0.5175
	12	16.2227	35.1239	2.9770	0.0848	16.2148	19.2974	-1.2632	-0.0655	0.0193
FC EMS-1	13	17.1250	31.6586	8.4621	0.2673	17.1211	28.5908	4.0639	0.1421	0.4094
	14	17.4805	28.8140	3.7437	0.1299	17.4727	26.6680	-2.4661	-0.0925	0.0375
	15	19.2813	34.1929	9.4058	0.2751	19.2813	22.8225	5.5030	0.2411	0.5162
	16	19.6406	35.4342	3.7437	0.1057	19.6367	21.2202	-1.5424	-0.0727	0.0330
T-5	17	20.2734	29.2278	8.5408	0.2922	20.2695	27.3089	5.0519	0.1850	0.4772
	18	20.6328	35.5376	4.7071	0.1325	20.6250	25.1191	-2.5305	-0.1007	0.0317
	19	21.0117	29.1243	8.6784	0.2980	21.0117	23.4634	5.2238	0.2226	0.5206
	20	21.3711	31.0897	5.0020	0.1609	21.3633	19.8850	-2.0580	-0.1035	0.0574
SC EMS-2	21	24.1094	31.3483	9.8776	0.3151	24.1055	23.3032	5.4815	0.2352	0.5503
	22	24.4688	33.2619	4.2745	0.1285	24.4570	21.1134	-1.3491	-0.0639	0.0646
	23	24.8516	30.3656	9.1109	0.3000	24.8477	23.3566	4.7083	0.2016	0.5016
	24	25.2109	31.7103	4.5301	0.1429	25.2031	19.5111	-1.6069	-0.0824	0.0605
	25	26.0078	44.0197	14.1832	0.3222	26.0117	32.5965	8.7465	0.2683	0.5905
	26	26.3906	48.0996	8.3442	0.1735	26.3828	31.2613	-0.9195	-0.0294	0.1441
	27	26.7617	40.8071	11.0769	0.2715	26.7617	27.7362	4.8371	0.1744	0.4459
	28	27.1445	42.7724	4.4711	0.1045	27.1367	24.7987	-1.2632	-0.0509	0.0536
	29	29.4609	40.2382	12.4728	0.3100	29.4570	29.3385	6.0830	0.2073	0.5173
TRIP-MLC	30	29.8477	46.2894	4.8447	0.1047	29.8359	27.8965	-2.1439	-0.0769	0.0278
	31	30.2266	44.8930	12.1582	0.2708	30.2188	28.4840	7.6725	0.2694	0.5402
	32	30.6133	47.9962	4.6284	0.0964	30.6055	25.3862	-1.7358	-0.0684	0.0281
	33	31.4258	29.9976	8.5997	0.2867	31.4219	24.6384	4.9231	0.1998	0.4865
	34	31.8008	31.1872	3.0360	0.0974	31.7969	25.0123	-1.9506	-0.0780	0.0194
	35	32.1914	28.8598	7.9903	0.2769	32.1914	19.5645	4.4505	0.2275	0.5044
	36	32.5742	29.8942	3.5471	0.1187	32.5625	17.4815	-1.4350	-0.0821	0.0366
	37	35.4453	29.1701	8.9733	0.3076	35.4414	22.2884	5.8467	0.2623	0.5699
LCC EMS-1	38	35.8281	33.2042	3.0360	0.0914	35.8203	21.0066	-1.1343	-0.0540	0.0374
	39	36.2305	31.2906	10.2315	0.3270	36.2305	21.1668	6.4267	0.3036	0.6306
	40	36.6172	32.4284	4.2352	0.1306	36.6094	18.8702	-1.2417	-0.0658	0.0648
	41	37.4063	45.7722	13.2985	0.2905	37.4102	35.8545	8.0591	0.2248	0.5153
	42	37.8086	48.3582	3.9993	0.0827	37.8008	33.9318	-1.9935	-0.0588	0.0240
	43	38.2070	40.6002	10.6640	0.2627	38.1992	26.7748	5.1808	0.1935	0.4562
	44	38.6094	41.7898	3.7634	0.0901	38.6016	23.6237	-1.1988	-0.0507	0.0393
	45	41.5625	43.0310	13.1609	0.3059	41.5547	24.9589	7.7155	0.3091	0.6150
MLC EMS-	46	41.9727	44.4792	2.3282	0.0523	41.9609	25.7066	-0.6832	-0.0266	0.0258
	47	42.3789	45.9791	11.6077	0.2525	42.3750	24.3714	5.6534	0.2320	0.4844
	48	42.7930	47.9962	3.0753	0.0641	42.7813	23.4634	-0.6188	-0.0264	0.0377
	49	43.6094	31.9630	9.7204	0.3041	43.6094	23.6771	5.3956	0.2279	0.5320
	50	44.0156	34.9627	2.8590	0.0818	44.0078	22.8759	-1.0914	-0.0477	0.0341
	51	44.4375	31.6009	9.1895	0.2908	44.4375	20.5793	5.1164	0.2486	0.5394
	52	44.8477	32.4802	2.8983	0.0892	44.8359	19.5645	-1.1773	-0.0602	0.0291
	53	47.9609	31.3940	9.6810	0.3084	47.9492	22.2884	6.6200	0.2970	0.6054
SC EMS-1	54	48.3789	33.2042	2.3479	0.0707	48.3672	20.3656	-1.0914	-0.0536	0.0171
	55	48.8164	31.3423	10.4085	0.3321	48.8164	21.0600	6.4052	0.3041	0.6362
	56	49.2422	32.6353	2.9573	0.0906	49.2305	18.1224	-0.7692	-0.0424	0.0482
	57	50.3320	23.6878	9.0126	0.3805	50.3359	21.0066	5.2882	0.2517	0.6322
	58	50.9180	27.8254	3.1736	0.1141	50.9063	14.3837	0.7130	0.0496	0.1636
	59	54.7578	24.5153	8.4425	0.3444	54.7617	18.9236	4.5794	0.2420	0.5864
	60	55.3750	27.8771	3.3309	0.1195	55.3594	15.6656	-1.0269	-0.0656	0.0539