FTA RESEARCH

FEDERAL TRANSIT ADMINISTRATION

Platform Track Intrusion Detection System Evaluation for Los Angeles County Metropolitan Transportation Authority

MARCH 2021

FTA Report No. 0189
Federal Transit Administration

PREPARED BY

Kane Sutton
Transportation Technology Center, Inc.
A subsidiary of the Association
of American Railroads

Arkady Bernshteyn
Sr. Director, Project Engineering
LACMTA

U.S. Department of Transportation
Federal Transit Administration

COVER PHOTO

Courtesy of Edwin Adilson Rodriguez, Federal Transit Administration

DISCLAIMER

Platform Track Intrusion Detection System Evaluation for Los Angeles County Metropolitan Transportation Authority

MARCH 2021

FTA Report No. 0189

PREPARED BY

Kane Sutton
Transportation Technology Center, Inc.
A subsidiary of the Association of American Railroads
55500 DOT Road, Pueblo, CO 81001

Arkady Bernshteyn
Sr. Director, Project Engineering
LACMTA
One Gateway Plaza
Los Angeles, CA 90012-2952

SPONSORED BY

Federal Transit Administration
Office of Research, Demonstration and Innovation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

AVAILABLE ONLINE

https://www.transit.dot.gov/about/research-innovation

Metric Conversion Table

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liter	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
NOTE: volumes greater than 1000 L shall be shown in m^3				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
March 2021	Final	2016-2020

4. TITLE AND SUBTITLE
Platform Track Intrusion Detection System Evaluation for Los Angeles County Metropolitan Transportation Authority

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)
Kane Sutton, TTCI; Arkady Bernshteyn, LACMTA

5d. PROGRAM NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESSE(ES)
Transportation Technology Center, Inc.
A subsidiary of the Association of American Railroads
55500 DOT Road, Pueblo, CO 81001Los Angeles, CA 90012-2952

LACMTA
One Gateway Plaza
Los Angeles, CA 90012-2952

8. PERFORMING ORGANIZATION REPORT NUMBER
FTA Report No. 0189

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
US Department of Transportation
Federal Transit Administration
Office of Research, Demonstration and Innovation
1200 New Jersey Ave., SE, Washington, DC 20590

10. SPONSOR/MONITOR'S ACRONYM(S)
FTA

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12 . DISTRIBUTION/AVAILABILITY STATEMENT
Available from: National Technical Information Service (NTIS), Springfield, VA 22161; (703) 605-6000, Fax (703) 605-6900, email [orders@ntis.gov]; Distribution Code TRI-30

13. SUPPLEMENTARY NOTES NOTES [www.transit.dot.gov/about/research-innovation] [https://www.transit.dot.gov/about/research-innovation] [https://doi.org/10.21949/1520675] Suggested citation: Federal Transit Administration. Platform Track Intrusion Detection System Evaluation for Los Angeles County Metropolitan Transportation Authority. Washington, D.C.: United States Department of Transportation, 2020. https://doi.org/10.21949/1520675

14. ABSTRACT

This project evaluates the capabilities of the Platform Track Intrusion Detection System (PTIDS) at/near passenger platforms to detect bodies/obstacles intruding into the right-of-way and provide immediate warning to rail operations safety systems and personnel. This system monitors the track area in front of the platform through a row of transmitter and receiver sensor module pairs on each side of the track. The plane between the transmitter and receiver modules is set to a reasonable height below the platform and above the top and rail. An object is detected by the STID function when it falls through this plane and interrupts the radar signal between the transmission modules and corresponding receiver modules. Software algorithms are then used to filter unwanted detections, including the train.

15. SUBJECT TERMS: PTIDS, platform intrusion, rail safety, monitoring, transmitter, receiver

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT Unclassified	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified		34	19b. TELEPHONE NUMBER

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

This project evaluates the capabilities of the Platform Track Intrusion Detection System (PTIDS) at/near passenger platforms to detect bodies/obstacles intruding into the right-of-way and provide immediate warning to rail operations safety systems and personnel. This system monitors the track area in front of the platform through a row of transmitter and receiver sensor module pairs on each side of the track. The plane between the transmitter and receiver modules is set to a reasonable height below the platform and above the top and rail. An object is detected by the STID function when it falls through this plane and interrupts the radar signal between the transmission modules and corresponding receiver modules. Software algorithms are then used to filter unwanted detections, including the train.

EXECUTIVE SUMMARY

Los Angeles County Metropolitan Transportation Authority (LACMTA) is in partnership with Honeywell International, Inc., to implement an innovative Platform Track Intrusion Detection System (PTIDS) known as the Track Sentinel. LACMTA received a grant from the Federal Transit Administration (FTA) to support this project. One component of this grant was an evaluation of the system to be undertaken by an independent third party. Transportation Technology Center, Inc. (TTCI), in Pueblo, Colorado, was contracted by LACMTA to act as the independent third party for this evaluation.

The purpose of this project was to evaluate the capabilities of the PTIDS at/near passenger platforms to detect bodies/obstacles intruding into the right-of-way and provide immediate warning to rail operations safety systems and personnel.

The PTIDS has been tested in Europe and has reported no false negatives or false positive alarms. The system is touted as being turn-key. TTCI was tasked to evaluate the ability of the PTIDS to install as a turn-key system and the ability for the system to achieve the accuracy noted in prior studies based on a prescribed test plan.

The PTIDS installation/test site was on the Metro Rail Red Line at the Civic Center Station in Los Angeles. Testing personnel from TTCI traveled to the PTIDS installation site on LACTMA property and observed testing conducted by LACMTA personnel over the course of several days, July 17–22, 2019. All testing was performed primarily at night when the line was not in revenue service and the track was allocated for testing. Some testing took place on the final night while trains were actively operating on the line.

The system was tested primarily for its ability to detect intrusions onto the track and tunnel intrusions at the platform area. For the most part, the system functioned as expected; however, there were some false negatives when testing the system's ability to detect various objects thrown onto the track from the platform. All other testing resulted in the system performing as expected 100% of the time.

Whether or not this system can be considered "turn-key" depends on the requirements of the transit authority. If it does not require the detection of objects such as those that resulted in some false negative tests, then perhaps it could be considered turn-key; however, if the transit authority requires 100% detection of these types of objects, then the system needs further development.

SECTION

1

Introduction

Project Overview

Los Angeles County Metropolitan Transportation Authority (LACMTA) is in partnership with Honeywell International, Inc., to implement an innovative Platform Track Intrusion Detection System (PTIDS) known as the Track Sentinel. LACMTA received a grant from the Federal Transit Administration (FTA) to support this project. One component of this grant was an evaluation of the system to be undertaken by an independent third party. Transportation Technology Center, Inc. (TTCI), in Pueblo, Colorado, was contracted by LACMTA to act as the independent third party for this evaluation.

The PTIDS is designed to provide two kinds of intrusion detection:

- Station Track Intrusion Detection (STID) – Detects a person or an object of a specific size intruding from the platform into the track area.
- Tunnel Intrusion Detection (TID) – Detects a person/object entering the tunnel entrance from the station track area.

This system monitors the track area in front of the platform through a row of transmitter and receiver sensor module pairs on each side of the track. The plane between the transmitter and receiver modules is set to a reasonable height below the platform and above the top and rail. An object is detected by the STID function when it falls through this plane and interrupts the radar signal between the transmission modules and corresponding receiver modules. Software algorithms are then used to filter unwanted detections, including the train.

Additional module pairs are also installed beyond each end of the platform. These modules are used for the TID function and are responsible for detecting a person leaving the station track area and entering the tunnel area. An alarm also is triggered if an object falls through these module pairs just as it would for the other modules used for STID. Figures 1-1 and 1-2 depict the module detection zones for STID and TID.[1] Figure 1-3 illustrates the typical arrangement of the transmitter and receiver modules in relation to the platform.

[1]Planning Instruction for the Track Sentinel, November 4, 2016, BTU2407/05-1. Germany: Honeywell Regelsysteme GmbH.

Figure 1-1

STID and TID detection zones

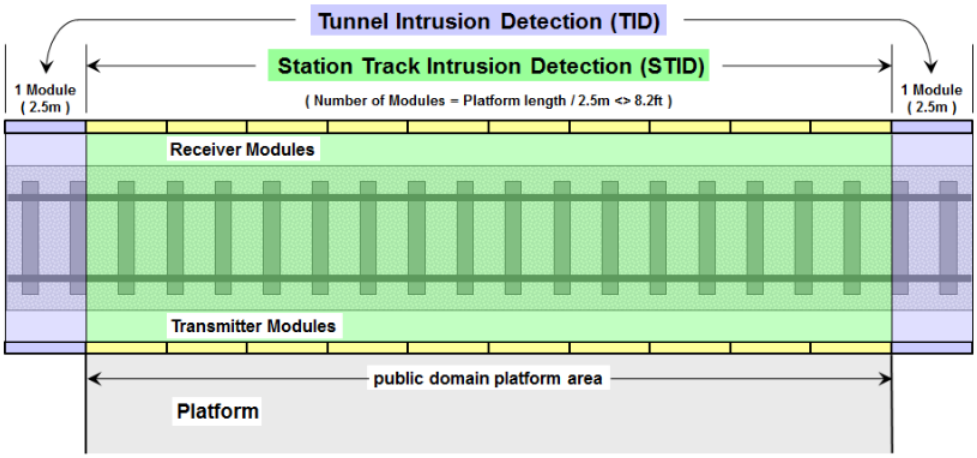


Figure 1-2

STID and TID alarm zones

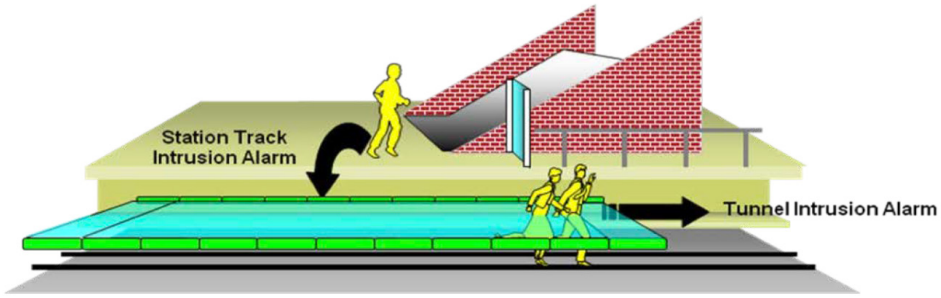
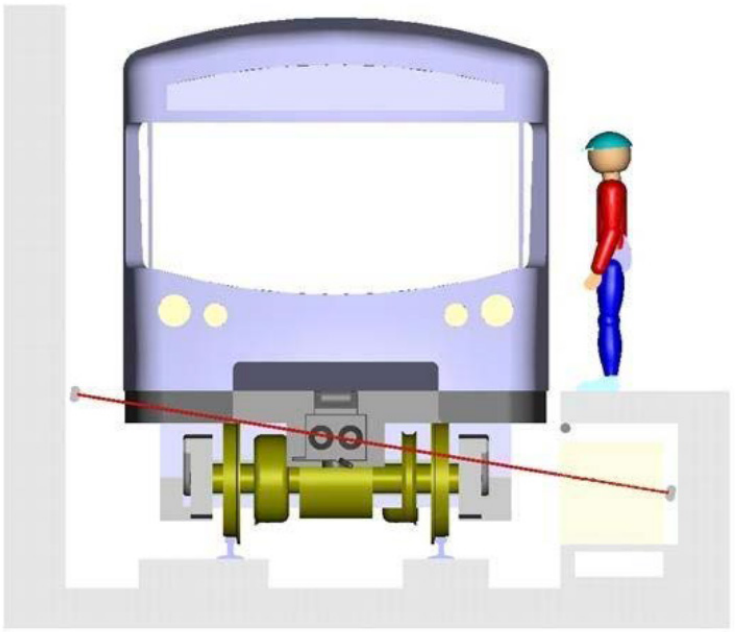


Figure 1-3

Typical arrangement of STID and TID transmitter and receiver modules



Project Objective

The purpose of this project was to evaluate the capabilities of the PTIDS at or near passenger platforms to detect bodies/obstacles intruding into the right-of-way and provide immediate warning to rail operations safety systems and personnel.

TTCI was tasked to evaluate the ability of the PTIDS to install as a turn-key system and the ability for the system to achieve the accuracy noted in prior studies based upon a prescribed test plan.

SECTION

2

Procedures

Testing personnel from TTCI traveled to the PTIDS installation site on LACTMA property and observed testing conducted by LACMTA personnel over the course of several days, July 17–22, 2019. Prior to the testing, TTCI personnel attended LACMTA rail safety training as required by LACMTA policy and also received introductory training on the PTIDS provided by Honeywell personnel. All testing was performed at night, primarily when the line was not in revenue service and the track was allocated for testing. Some testing took place on the final night while trains were actively operating on the line.

Three facets of the PTIDS were tested. Every night of testing began with a static test, where the system was logged on and checked for nominal operation. After the static test, one of two dynamic tests was performed that involved testing the STID and TID functions.

Test Site

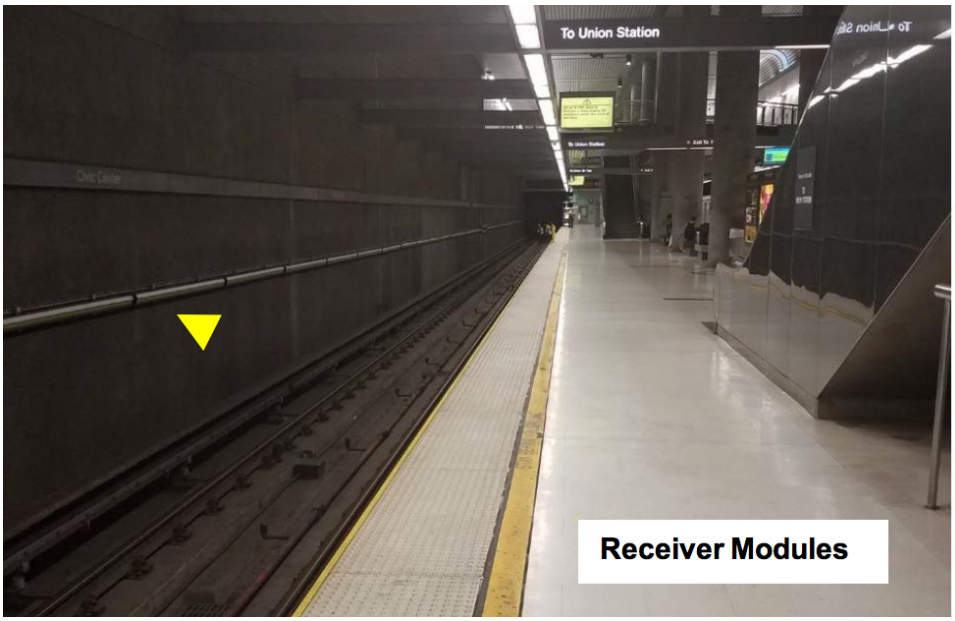
The PTIDS installation/test site was on the Metro Rail Red Line at the Civic Center Station in Los Angeles, as shown in Figure 2-1.

Figure 2-1

Metro Rail Red Line Civic Center Station

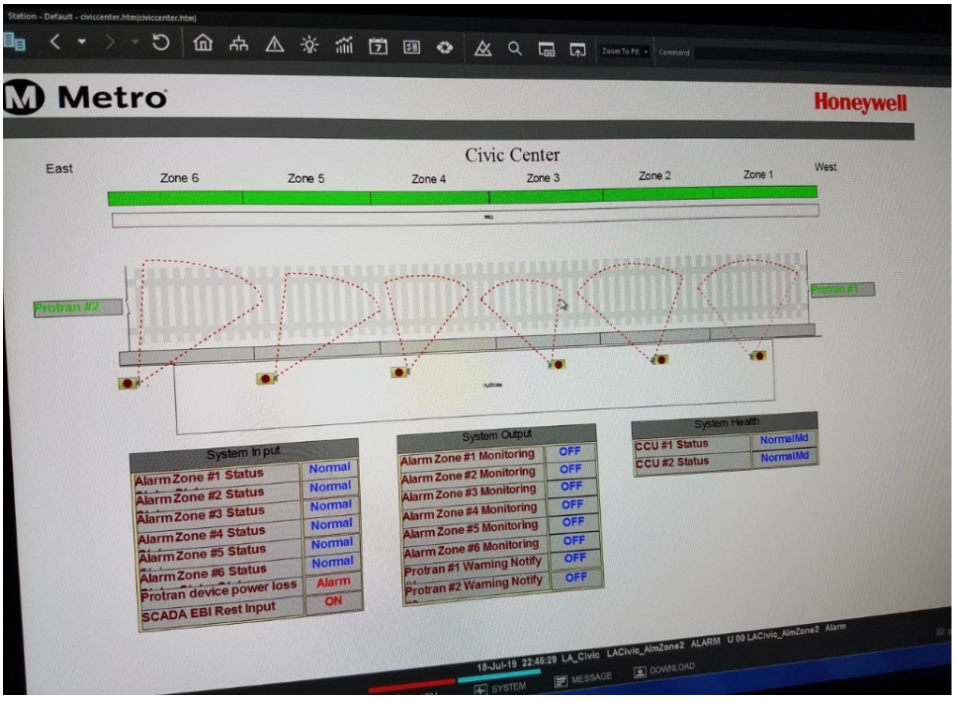
Figure 2-2 shows the platform with a yellow arrow pointing to the row of receiver modules mounted along the wall.

Figure 2-2
Civic Center platform



The site consisted of six alarm zones spanning the length of the platform (approximately 450 ft) for STID. The two end zones, Zones 1 and 6, extended beyond the platform into the tunnel area for TID. Figure 2-3 is an illustration of the alarm zones as shown on the PTIDS maintenance computer in the Train Communications Center (TCC).

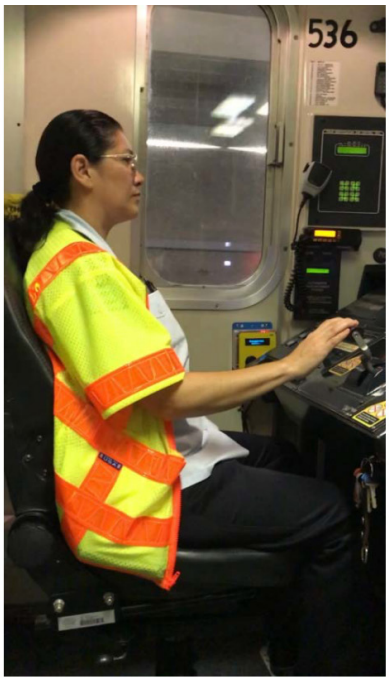
Figure 2-3
Screen shot from maintenance computer showing alarm zones



A secondary system by Protran Technology called an Intrusion Warning Device was also installed.[2] The Intrusion Warning Device provides local and remote indications that an unauthorized triggering event has occurred and alerts an operator within 800–1,200 ft of the PTIDS through an RF signal. The platform area also is alerted by way of visual and audible alarms, providing a warning to people in the area of the potentially dangerous situation (Figure 2-4). This system was available only for observation for some of the testing and was connected to the PTIDS status indicator at the platform, which included a strobe light and siren that would alert the platform area of an intrusion.

Figure 2-4

Protran intrusion warning device



Static Testing

Static testing was an operational check prior to the beginning of dynamic testing and consisted of the following procedure:

- Log OFF and ON the system.
- Verify that no alarm is generated.
- Verify that all receiver modules are responding via the Maintenance PC.
- Verify that all transmitter modules are responding via the Maintenance PC.
- Check that the system operates nominally.

[2] *Intrusion Warning Device Installation Manual,* December 7, 2017, Newton, New Jersey: Protran Technology.

No training was provided to TTCI personnel on powering the PTIDS OFF/ON, and there were no Honeywell or any other PTIDS trained personnel on site during the testing. Rather than powering the system OFF/ON, the system was logged OFF/ON instead.

Station Track Intrusion Detection Testing

STID testing was conducted two ways—object detection and detection of a test body/person within the platform detection zone (PDZ), the monitored area between the PTIDS receiver and transmitter modules.

Object Detection

First, various objects were tossed from the platform into each of the six detection/alarm zones within the PDZ a minimum of 10 times. The following objects were used for this testing (Figures 2-5 through 2-14):

- Medium cardboard box
- Backpack
- Honeywell ball
- Black handled bag
- Coffee cup
- Tool bag
- Hat
- Large cardboard box
- Aluminum can
- "Wet floor" caution cone

Figure 2-5

Medium cardboard box

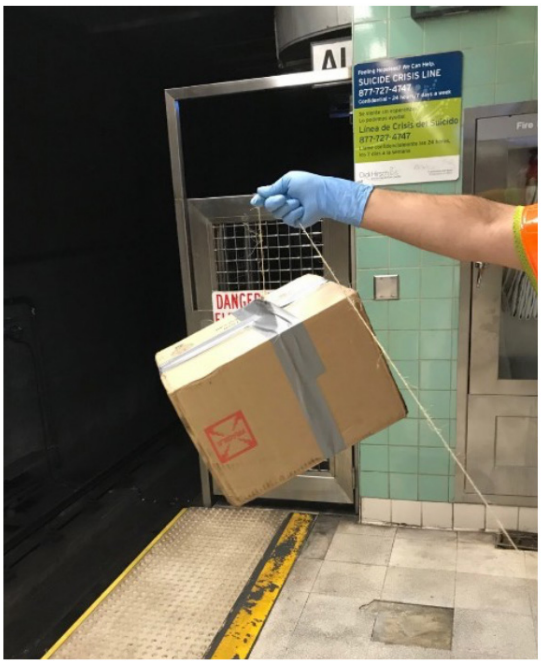


Figure 2-6

Backpack

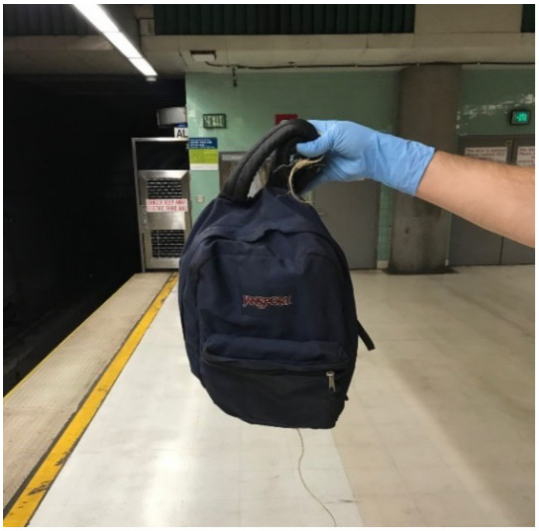


Figure 2-7

Honeywell ball

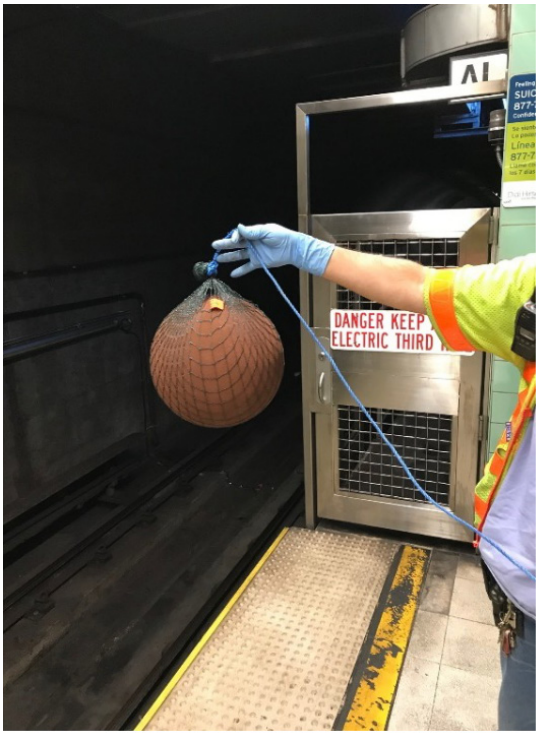


Figure 2-8

Black handled bag

Figure 2-9

Coffee cup

Figure 2-10

Tool bag

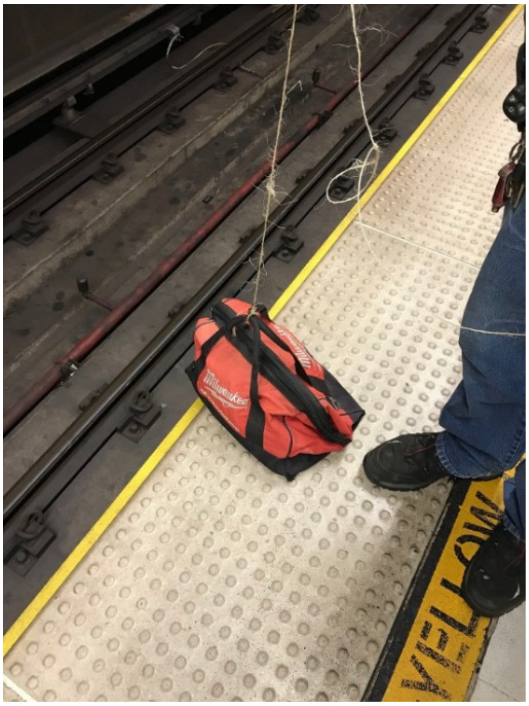


Figure 2-11

Hat

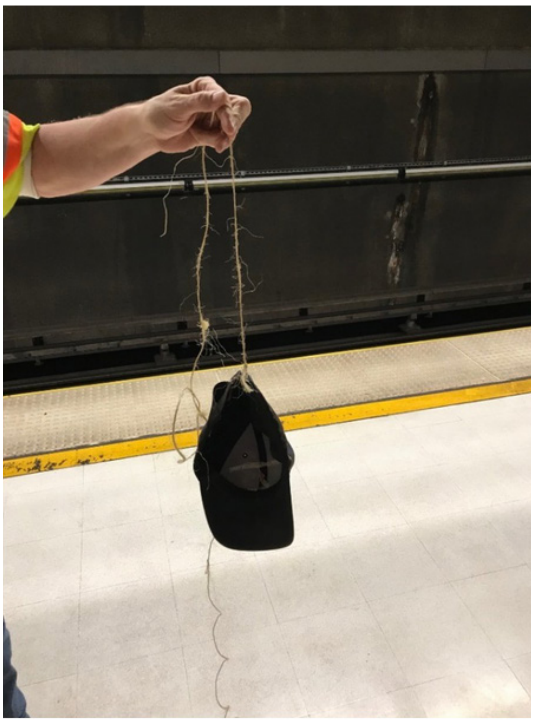


Figure 2-12

Large cardboard box

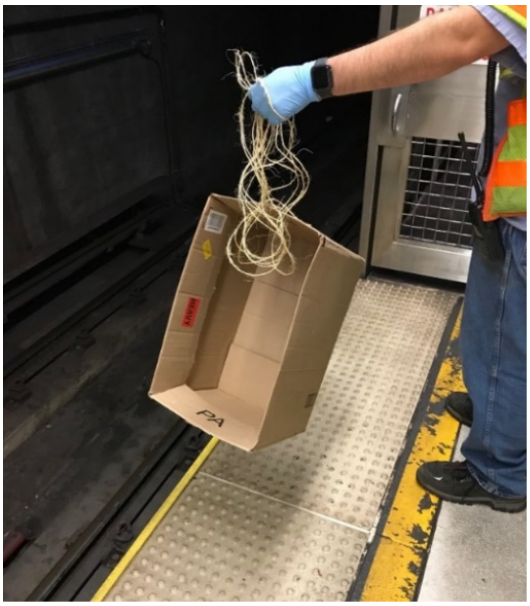


Figure 2-13

Aluminum can

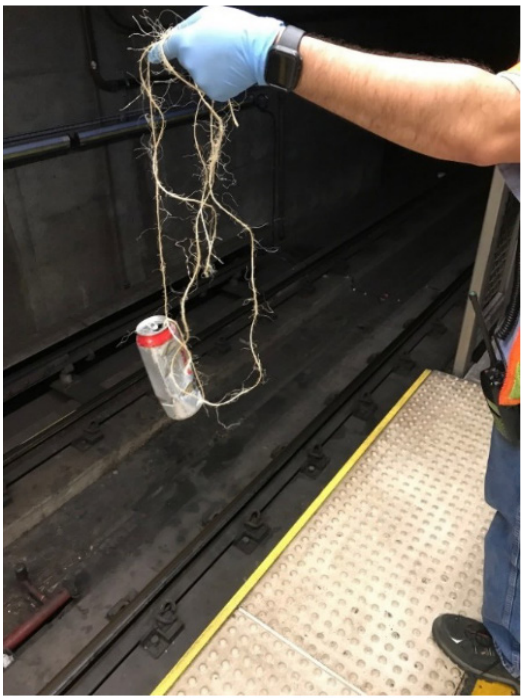


Figure 2-14
"Wet floor" caution cone

Following is the procedure for object detection:

- Verify that the system is operating nominally.
- For each object, the following steps were performed:
  - Start separate recording session.
  - Throw test object into track area.
  - Check and manually record PTIDS status indicator when object has fallen into track area.
  - Remove test object and wait until PTIDS status indicator shows "ready" again.
  - Repeat above test steps for each object 10 times at about same PTIDS location in same detection zone.
  - Repeat test steps above in remaining detection zones.
- Stop recording and save data to file,
- Select another test object and repeat test steps until PTIDS response to all objects has been tested.

For most object detection testing, the Protran system was deactivated; it was tested only once in each alarm zone for the "wet floor" caution cone. For these tests, only activation of the strobe light and siren were verified; to prevent excessive alarms being sent to trains operating in the area, it was not tested for every object every time.

Test Body/Person Detection

For this portion of the testing, the system was tested for its capability to detect a person within the PDZ. This testing was in two parts. The first part involved LACMTA personnel entering the PDZ and walking the length of it from one end to the other in five "lanes" along the track in both directions, for a total of 10 walks through the PDZ. Each of the six detection/alarm zones within the PDZ was tested 10 times total across five lanes. These lanes were designated as follows:

- Lane 1: Along field side of the rail nearest the platform.
- Lane 2: Along gauge side of rail nearest the platform.
- Lane 3: Along centerline of track.
- Lane 4: Along gauge side of rail farthest from the platform.
- Lane 5: Along field side of rail farthest from the platform.

The second part involved a test body being thrown from the platform into each alarm zone of the PDZ 10 times. The test body used for this testing was a pair of coveralls with a cardboard cutout of a person inside (Figure 2-15).

Figure 2-15

Test body

The procedure for this portion of the test was as follows:

Part 1: Continuous Body Detection

- Verify that system is operating nominally.
- Start separate recording session.

Turn-on Maintenance PC and select platform display. Insert test body into detection area anywhere along detection zone and verify detection on Maintenance PC and PTIDS status indicator at platform area. (This step was repeated 10 times at each location by having LACMTA personnel walk the lanes.)

- Stop recording and save data to file.

Part 2: Test Body Drop

- Verify that system is operating nominally.
- Start separate recording session.
- Throw test body into track area perpendicular to tracks from maximum height of 1.0 m above platform level at different platform detection zone locations; verify that PTIDS detects object. (This step was repeated 10 times in each alarm zone.)
- Wait at least 10 seconds after removing test object and verify that PTIDS status indicator reports "ready" before testing at next location.
- Repeat test steps above for remaining alarm zones.
- Stop recording and save data to file.

The Protran Intrusion Warning Device and platform status indicator were activated for observation during only Part 1 of this testing.

Tunnel Intrusion Detection Testing

For the TID testing, a Honeywell ball was dropped into the tunnel entrance zones while trains were actively operating on the line. Originally, it was planned to have the test body for this portion of testing; however, for safety reasons it was decided to use the ball because it was more reliably retrievable from the track. Both the PTIDS and the Protran Intrusion Warning Device onboard a train in the vicinity were observed. The prescribed procedure was as follows:

- Verify that system is operating nominally.
- Start separate recording session.
- Insert test body into left-most module monitoring area and verify that PTIDS detects object entering tunnel area. (This step was repeated 10 times at each end of tunnel (20 total tests).
- Stop recording and save data to file.

Because of operational constraints, only 13 tests were completed (7 for the east entrance and 6 for the west entrance).

SECTION

3

Results

An objective of this project for TTCI was to evaluate the ability to install the PTIDS as a "turn- key" system based on the ability to achieve the accuracy noted in prior studies. According to LACMTA, the system has been tested in Europe and has reported no false negative or false positive alarms. No false positive alarms were observed during the testing for this project; however, some false negatives were recorded during STID object detection. For the full results of every test, refer to Appendix A.

Static Testing

Static testing was performed each night of testing, sometimes multiple times a night. The PTIDS performed as expected throughout the testing. Every time the system was logged on, all receiver and transmitter modules responded, and the system operated nominally. For two nights of testing (July 18–19), the Protran system was manually disabled most of the time to prevent repetitive alarming to trains operating in the area. When in this state, the PTIDS indicated or "alarmed" that the Protran system was not active. For the final night of testing (July 21), the Protran system was activated, and the system provided no alarms upon logging on.

Object Detection Results

The STID object testing revealed mixed results. Some objects alarmed for every test in every zone, whereas others never alarmed in any test or zone. Tests on a couple of items was inconsistent, alarming most of the time but not always.

Table 3-1
STID Object Detection Results

Object	Alarm Rate	Tests	Alarms
Medium box	100%	60	60
Backpack	100%	60	60
Honeywell ball	100%	60	60
Black handled bag	92.3%	65	60
Coffee cup	0%	60	0
Tool bag	100%	60	60
Hat	0%	60	0
Large box	96.8%	62	60
Aluminum can	0%	60	60
"Wet floor" caution cone	100%	60	60

These results suggest that the system is expected to alarm on some items but not others. TTCI personnel that observed the testing were not informed of this during the training they received from Honeywell personnel, and no representative from Honeywell was present during the testing to confirm if this

was the case. However, Honeywell documentation suggests that this is true but it does not appear to specify the criteria for an object to set off an alarm.[3] It does note that the following items should not produce an alarm: tin can, plastic bottle, magazine/newspaper, umbrella, and empty plastic bag. This would explain why the hat, coffee cup, and aluminum can did not alarm. However, based on this logic and the results for the other objects, it would be expected that the large box and the black handled bag would produce alarms 100% of the time, but they did not. Therefore, it can be concluded that there were seven false negative test results for these two items—five for the black handled bag and two for the large box.

Test Body/Person Detection Results

The test body/person detection testing was in two parts. The first involved LACMTA personnel walking the length of the PDZ across all detection zones in five lanes in both directions. The results of this testing revealed a 100% alarm rate from the PTIDS for all 60 tests. For this testing, a train was made available to observe the Protran Intrusion Warning Device; it also had a 100% alarm rate. The second part involved dropping a test body from the platform into every detection zone 10 times. This also resulted in a 100% alarm rate from the PTIDS for all 60 tests.

Tunnel Intrusion Detection Results

The TID testing involved dropping the Honeywell ball into the tunnel entrances while trains were actively operating on the track. This testing resulted in a 100% alarm rate for the PTIDS, the Protran Intrusion Warning Device, and the platform status indicator (siren and strobe light).

[3] Planning Instruction for the Track Sentinel, Nov. 4, 2016. BTU2407/05-1. Germany: Honeywell Regelsysteme GmbH.

SECTION

4

Conclusion

The overall objective of this project was to evaluate the ability of the PTIDS to detect bodies/obstacles intruding into the right-of-way and provide immediate warning to rail operations safety systems and detection testing, this system (in conjunction with the Protran system) appears to be functionally capable of alerting operations safety systems and personnel when a track/tunnel intrusion occurs at the platform area.

Depending upon the requirements of the transit authority and its needs for the kind and size of objects it wants to detect on the track at the platform area, this system appears to require no additional development, integration, or customization and could be considered "turn-key" if the false negatives are of no concern. If, on the other hand, a transit authority has a requirement to detect objects such as the black handled bag and the large cardboard box 100% of the time, then it appears that the PTIDS may require some additional development.

APPENDIX

A

LACMTA PTIDS Test Matrix

	NO ALARM (Except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status	ACTIVE TRAIN PRESENT AT PLATFORM	ON-TRAIN Protran Intrusion Warning Device	READY	Notification CONFIRMED	DATE	Time	NOTES
Logged System OFF/ON*	N**	Y	Y	Y									7/18/2019	0:30:00	*Due to lack of training of testing personnel and no Honewell representation, system not powered OFF/ON., was only logged OFF/ON.
Logged System OFF/ON*	N**	Y	Y	Y									7/18/2019		**Protran system turned off. PTIDS "alarmed" or indicated it was not active.
Logged System OFF/ON*	N**	Y	Y	Y									7/18/2019	2:23:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/18/2019	22:30:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/18/2019	23:10:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/18/2019	23:45:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/19/2019	0:50:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/19/2019	1:25:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/19/2019	2:20:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/19/2019	22:10:00	
Logged System OFF/ON*	N**	Y	Y	Y									7/19/2019		
Logged System OFF/ON*	N**	Y	Y	Y									7/20/2019	1:15:00	
Logged System OFF/ON*	Y	Y	Y	Y									7/21/2019	21:30:00	
															†Protran system and PTIDS status indicator (strobe light and siren) connected and turned off to prevent continual alarming on trains in area.
Test Zone TZ-1 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019	0:54:32	Start
Test Zone TZ-1 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-6 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019	1:40:42	End
Test Zone TZ-1 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019	2:00:34	Start
Test Zone TZ-1 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-1 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-2 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-3 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 8			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 9			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-4 -Test 10			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 1			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 2			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 3			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 4			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 5			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 6			Y	Y	Y	N†	Y	N	N†				7/18/2019		
Test Zone TZ-5 -Test 7			Y	Y	Y	N†	Y	N	N†				7/18/2019		

	NO ALARM (except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status	Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status	READY	ACTIVE TRAIN PRESENT AT PLATFORM	ON-TRAIN Protran Intrusion Warning Device	Notification CONFIRMED	DATE	Time	NOTES	
Test Zone TZ-5 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019	2:21:14	End						
Test Zone TZ-1 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019	2:24:45	Start						
Test Zone TZ-1 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019	22:39:30	Start						
Test Zone TZ-1 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 11		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 11		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 11		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								

	NO ALARM (Except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status	Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status	ACTIVE TRAIN PRESENT AT PLATFORM	ON-TRAIN Protran Intrusion Warning Device	READY	Notification CONFIRMED	DATE	Time	NOTES	
Test Zone TZ-5 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 11		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 12		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019	23:12:30	End						
											COFFEE CUP DID NOT ALARM IN ANY ZONE FOR ANY TEST							
Test Zone TZ-1 -Test 1		Y	Y	N	N†	Y	N	N†	7/18/2019	23:15:00	Start						
Test Zone TZ-1 -Test 2		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 5		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 6		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 8		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 9		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 1		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 2		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 5		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 6		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 8		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 9		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 1		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 2		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 5		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 6		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 8		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 9		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 1		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 2		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 5		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 6		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 8		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 9		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 1		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 2		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 5		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 6		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 8		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 9		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 1		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 2		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 3		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 4		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 5		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 6		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 7		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 8		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 9		Y	Y	N	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 10		Y	Y	N	N†	Y	N	N†	7/18/2019	23:41:00	End						
Test Zone TZ-1 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019	23:46:00	Start						
Test Zone TZ-1 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-1 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-2 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-3 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-4 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								

	NO ALARM (except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status	Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status	READY	ACTIVE TRAIN PRESENT AT PLATFORM	ON-TRAIN Protorn Intrusion Warning Device	Notification CONFIRMED	DATE	Time	NOTES	
Test Zone TZ-5 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-5 -Test 10		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 1		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 2		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 3		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 4		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 5		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 6		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 7		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 8		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 9		Y	Y	Y	N†	Y	N	N†	7/18/2019								
Test Zone TZ-6 -Test 10		Y	Y	Y	N†	Y	N	N†	7/19/2019	0:08:00	End						
											HAT DID NOT ALARM IN ANY ZONE FOR ANY TEST							
Test Zone TZ-1 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019	0:53:00	Start						
Test Zone TZ-1 -Test 2		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 3		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 4		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 5		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 6		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 8		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 9		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 10		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 2		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 3		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 4		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 5		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 6		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 8		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 9		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 10		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 2		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 3		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 4		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 5		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 6		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 8		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 9		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 10		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 2		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 3		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 4		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 5		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 6		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 8		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 9		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 10		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 2		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 3		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 4		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 5		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 6		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 8		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 9		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 10		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 2		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 3		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 4		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 5		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 6		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 8		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 9		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-6 -Test 10		Y	Y	N	N†	Y	N	N†	7/19/2019	1:08:00							
Test Zone TZ-1 -Test 1		Y	Y	Y	N†	Y	N	N†	7/19/2019	1:26:00							
Test Zone TZ-1 -Test 2		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 3		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 4		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 5		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 6		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 7		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 8		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 9		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-1 -Test 10		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 1		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 2		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 3		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 4		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 5		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 6		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 7		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 8		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 9		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-2 -Test 10		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 1		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 2		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 3		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 4		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 5		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 6		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 7		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 8		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 9		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 10		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-3 -Test 11		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 1		Y	Y	N	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 2		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 3		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 4		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 5		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 6		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 7		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 8		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 9		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 10		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-4 -Test 11		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 1		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 2		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 3		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 4		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 5		Y	Y	Y	N†	Y	N	N†	7/19/2019								
Test Zone TZ-5 -Test 6		Y	Y	Y	N†	Y	N	N†	7/19/2019								

	NO ALARM (Except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status ACTIVE TRAIN PRESENT AT PLATFORM	ON-TRAIN: Protran Intrusion Warning Device Notification CONFIRMED	READY	DATE	Time	NOTES	
Test Zone TZ-5 -Test 7		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 8		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 9		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 10		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 1		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 2		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 3		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 4		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 5		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 6		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 7		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 8		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 9		Y	Y	Y	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 10		Y	Y	Y	N†	Y	N	N†			7/19/2019	2:02:00		
													BEER CAN DID NOT ALARM IN ANY ZONE FOR ANY TEST	
Test Zone TZ-1 -Test 1		Y	Y	N	N†	Y	N	N†			7/19/2019	2:24:00		
Test Zone TZ-1 -Test 2		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 3		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 4		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 5		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 6		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 7		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 8		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 9		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-1 -Test 10		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 1		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 2		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 3		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 4		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 5		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 6		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 7		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 8		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 9		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-2 -Test 10		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 1		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 2		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 3		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 4		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 5		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 6		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 7		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 8		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 9		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-3 -Test 10		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 1		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 2		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 3		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 4		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 5		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 6		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 7		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 8		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 9		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-4 -Test 10		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 1		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 2		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 3		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 4		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 5		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 6		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 7		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 8		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 9		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-5 -Test 10		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 1		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 2		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 3		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 4		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 5		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 6		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 7		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 8		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 9		Y	Y	N	N†	Y	N	N†			7/19/2019			
Test Zone TZ-6 -Test 10		Y	Y	N	N†	Y	N	N†			7/19/2019	2:32:00	End	
													HIGHRAILER CAME THROUGH TRACK AT 02:38 - NO ALARMS NOTED	
Test Zone TZ-1 -Test 1		Y	Y	Y	Y	Y	N	N§			7/19/2019	22:44:21	Start	
Test Zone TZ-1 -Test 2		Y	Y	Y	N‡	Y	N	N§			7/19/2019		‡To prevent excessive alarming, Protran/PTIDS status indicator at platform area was activated and reset only on first test of each alarm zone.	
Test Zone TZ-1 -Test 3		Y	Y	Y	N‡	Y	N	N§			7/19/2019		§Although Protran system armed for this section no personnel were onboard a train to verify	
Test Zone TZ-1 -Test 4		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-1 -Test 5		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-1 -Test 6		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-1 -Test 7		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-1 -Test 8		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-1 -Test 9		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-1 -Test 10		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 1		Y	Y	Y	Y	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 2		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 3		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 4		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 5		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 6		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 7		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 8		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 9		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-2 -Test 10		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 1		Y	Y	Y	Y	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 2		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 3		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 4		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 5		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 6		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 7		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 8		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 9		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-3 -Test 10		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 1		Y	Y	Y	Y	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 2		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 3		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 4		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 5		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 6		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 7		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 8		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 9		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-4 -Test 10		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 1		Y	Y	Y	Y	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 2		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 3		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 4		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 5		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 6		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 7		Y	Y	Y	N‡	Y	N	N§			7/19/2019			
Test Zone TZ-5 -Test 8		Y	Y	Y	N‡	Y	N	N§			7/19/2019			

	NO ALARM (except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status	ACTIVE TRAIN PRESENT AT PLATFORM	ON-TRAIN Protran Intrusion Warning Device	READY	Notification CONFIRMED	DATE	Time	NOTES
Test Zone TZ-5 -Test 9		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-5 -Test 10		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 1		Y	Y	Y	Y	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 2		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 3		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 4		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 5		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 6		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 7		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 8		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 9		Y	Y	Y	N‡	Y	N	N§					7/19/2019		
Test Zone TZ-6 -Test 10		Y	Y	Y	N‡	Y	N	N§					7/19/2019	23:46:13	End
Test Zone TZ-1 -Test 1		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:04:08	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 1		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 1 PLATFORM SIDE W to E
Test Zone TZ-3 -Test 1		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 1		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 1		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 1		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:07:31	
Test Zone TZ-1 -Test 2		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:10:40	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 2		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 5 WALL SIDE E to W
Test Zone TZ-3 -Test 2		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 2		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 2		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 2		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:13:55	
Test Zone TZ-1 -Test 3		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:18:01	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 3		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 2 GAUGE SIDE INSIDE RAIL W to E
Test Zone TZ-3 -Test 3		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 3		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 3		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 3		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:21:08	
Test Zone TZ-1 -Test 4		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:24:41	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 4		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 3 CENTER OF TRACK E to W
Test Zone TZ-3 -Test 4		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 4		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 4		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 4		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:27:40	
Test Zone TZ-1 -Test 5		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:28:44	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 5		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 4 GAUGE SIDE OUTSIDE RAIL W to E
Test Zone TZ-3 -Test 5		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 5		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 5		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 5		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:31:49	
Test Zone TZ-1 -Test 6		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:35:11	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 6		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 1 PLATFORM SIDE E to W
Test Zone TZ-3 -Test 6		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 6		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 6		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 6		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:38:04	
Test Zone TZ-1 -Test 7		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:38:48	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 7		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 2 E to W
Test Zone TZ-3 -Test 7		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 7		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 7		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 7		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:41:41	
Test Zone TZ-1 -Test 8		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:42:14	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 8		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 3 W to E
Test Zone TZ-3 -Test 8		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 8		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 8		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 8		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:45:08	
Test Zone TZ-1 -Test 9		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:45:53	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 9		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 4 E to W
Test Zone TZ-3 -Test 9		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 9		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 9		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 9		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:48:45	
Test Zone TZ-1 -Test 10		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:49:19	METRO PERSONNEL WALKED THE LENGTH OF TRACK THROUGH ALL ZONES
Test Zone TZ-2 -Test 10		Y	Y	Y	Y	Y	N	Y					7/20/2019		LANE 5 W to E
Test Zone TZ-3 -Test 10		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-4 -Test 10		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-5 -Test 10		Y	Y	Y	Y	Y	N	Y					7/20/2019		
Test Zone TZ-6 -Test 10		Y	Y	Y	Y	Y	N	Y					7/20/2019	0:52:10	
Test Zone TZ-1 -Test 1		Y	Y	Y	N†	Y	N	N†					7/20/2019	1:17:21	Start
Test Zone TZ-1 -Test 2		Y	Y	Y	N†	Y	N	N†					7/20/2019		†The Protran system and the PTIDS status indicator (strobe light and siren) are connected and were turned off to prevent continual alarming on trains in the area.
Test Zone TZ-1 -Test 3		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 4		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 5		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 6		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 7		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 8		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 9		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-1 -Test 10		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 1		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 2		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 3		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 4		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 5		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 6		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 7		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 8		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 9		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-2 -Test 10		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 1		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 2		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 3		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 4		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 5		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 6		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 7		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 8		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 9		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-3 -Test 10		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 1		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 2		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 3		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 4		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 5		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 6		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 7		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 8		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 9		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-4 -Test 10		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 1		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 2		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 3		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 4		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 5		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 6		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 7		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 8		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 9		Y	Y	Y	N†	Y	N	N†					7/20/2019		
Test Zone TZ-5 -Test 10		Y	Y	Y	N†	Y	N	N†					7/20/2019		

	NO ALARM (Except POWER UP)	ALL RECEIVER MODULES RESPONDING	ALL TRANSMITTER MODULES RESPONDING	SYSTEM OPERATING NOMINALLY	Turn on Maintenance PC & Select platform display	VERIFY Detection of Object on Maintenance PC	VERIFY Detection of Object on PTIDS Status Indicator at Platform Area	VERIFY Maintenance PC & PTIDS Status ACTIVE TRAIN PRESENT AT PLATFORM	READY ON-TRAIN Protran Intrusion Warning Device Notification CONFIRMED	DATE	Time	NOTES	
Test Zone TZ-6 -Test 1		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 2		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 3		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 4		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 5		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 6		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 7		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 8		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 9		Y	Y	Y	N†	Y	N	N†		7/20/2019			
Test Zone TZ-6 -Test 10		Y	Y	Y	N†	Y	N	N†		7/20/2019	1:42:00	End	
EAST ENTRANCE -Test 1		Y	Y	Y	Y	Y	Y	Y		7/21/2019	21:39:00		
EAST ENTRANCE -Test 2		Y	Y	Y	Y	Y	Y	Y		7/21/2019	22:07:00		
EAST ENTRANCE -Test 3		Y	Y	Y	Y	Y	Y	Y		7/21/2019	22:28:00		
EAST ENTRANCE -Test 4		Y	Y	Y	Y	Y	Y	Y		7/21/2019	22:42:00		
EAST ENTRANCE -Test 5		Y	Y	Y	Y	Y	Y	Y		7/21/2019	22:57:00		
EAST ENTRANCE -Test 6		Y	Y	Y	Y	Y	Y	Y		7/21/2019	23:06:00		
EAST ENTRANCE -Test 7		Y	Y	Y	Y	Y	Y	Y		7/21/2019	23:19:00		
WEST ENTRANCE -Test 1		Y	Y	Y	Y	Y	Y	Y		7/21/2019	23:28:00		
WEST ENTRANCE -Test 2		Y	Y	Y	Y	Y	Y	Y		7/21/2019	23:41:00		
WEST ENTRANCE -Test 3		Y	Y	Y	Y	Y	Y	Y		7/21/2019	23:54:00		
WEST ENTRANCE -Test 4		Y	Y	Y	Y	Y	Y	Y		7/22/2019	0:08:00		
WEST ENTRANCE -Test 5		Y	Y	Y	Y	Y	Y	Y		7/22/2019	0:15:00		
WEST ENTRANCE -Test 6		Y	Y	Y	Y	Y	Y	Y		7/22/2019	0:27:00		

U.S. Department of Transportation

Federal Transit Administration

U.S. Department of Transportation
Federal Transit Administration
East Building
1200 New Jersey Avenue, SE
Washington, DC 20590
https://www.transit.dot.gov/about/research-innovation