




## **Corrective Action Plans**

### **Metrorail Category 1:**

#### **Inadequate Rail Operations Control Center Staffing and Procedures** (14 Findings and 14 Required Actions)


	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-1</b> Required Action <b>R-1-1-a</b>
	Corrective Action Plan (CAP)	

Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-1-a**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-1</b>
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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-1</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-1-a</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-1** and its Required Action No. **R-1-1-a**.

### 2.1 FTA Finding

WMATA's Rail Operations Control Center is significantly understaffed.

### 2.2 FTA Required Action

WMATA must fully staff the Rail Operations Control Center (ROCC).


## 3 Analysis and Recommendation

### 3.1 Analysis

Metro is actively recruiting potential candidates for the Rail Operations Control Center (ROCC) from both internal and external candidate pools. A 2014 panel consisting of members from the Deputy General Manager of Operations (DGMO) Office and Human Resources (HR) found that a higher salary could potentially help increase the pool of qualified candidates. Since the FTA SMI, the ROCC has hired 4 Dispatchers to the Office of Plant Maintenance (PLNT), 4 Maintenance Operation Control (MOC) Supervisors, and has one vacancy remaining on the Track Access Maintenance and Construction (TAMC) desk for the MOC section. The ROCC currently has 11 open positions for controllers and is actively involved in the hiring process. To date, the ROCC has made offers of employment to 10 internal applicants to begin working as Rail Traffic Controllers (RTCs) within the Operations Control Center. The ROCC has 48 budgeted positions for RTCs and has a current staffing of 37 RTCs. It is anticipated that the newly hired RTCs will be available for work as full time controllers upon completion of their training in the summer of 2016.

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### 3.2 Recommendation

The recommended course of action to address this deficiency is to continue hiring qualified personnel until the ROCC is continually staffed at a 90 percent threshold.


## 4 Action Plan Description

Under this CAP, Metro will continue to recruit potential candidates for employment in the ROCC by both internal and external means. Once hired, Metro will put all controller candidates through the required training program in order to fully staff the ROCC.

### 4.1 Approach

Metro has already selected the employees that will convene for the hiring panel. Potential candidates will be interviewed and selected based off of panel recommendations. Once the candidates are hired, they will go through a vigorous 6 month training program with multiple evaluations.

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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-1</b> <b>Required Action R-1-1-a</b>
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Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Offer of employment	Formal offer of employment to either join the Metro team or transfer	Tawnya Moore-McGee	09/11/15
2)	Employee orientation	Confirmation of registration for new employee orientation	Tawnya Moore-McGee	11/10/15
3)	Personnel allocation report issued to TOC/SSOA on a semi-annual basis	90% threshold for allocated Rail Operations Control Center (ROCC) positions as the minimum ROCC staffing level and formal adoption of mandatory reporting to the TOC/SSOA should staffing fall below this level	Robert Relyea	Recurring
4)	QAAW report on the RTC training class progress	A report that will provide progress reports at the end of each phase of training	Dr. Scott	Recurring
5)	Staffing level memorandum	A memorandum that will be generated during the internal safety audit that verifies staffing levels	Manael Kennerly	Recurring
6)	Staffing review	A review that will be conducted during the internal safety audit that will ensure a 90% threshold is an acceptable level of staffing	Manael Kennerly	Recurring
7)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	08/31/16


#### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Offer of employment	08/10/15	09/11/15
Employee orientation	09/14/15	11/10/15
RTC training	12/01/15	07/31/15

#### 4.3 Budget / Cost Estimate




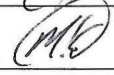

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action

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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-1</b> <b>Required Action R-1-1-a</b>
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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
HR	Tawnya Moore-McGee		Offer of employment/ Employee orientation	Robert Relyea	11/10/15
ROCC	Robert Relyea		Personnel allocation report	TOC/SSOA	Recurring
SAFE	Manael Kennerly		Staffing level memorandum	Robert Relyea	Recurring
SAFE	Manael Kennerly		Staffing Review	Robert Relyea	Recurring
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	08/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

No less than 90 percent of allocated positions staffed with fully qualified RTCs (a minimum of 43 positions filled by fully qualified RTCs out of WMATA's 48 allocated spots by the end of 2016).

Demonstrated maintenance of qualified RTC staffing level over the period of the SMI CAP resolution.


#### 7 Verification

Monthly/Quarterly updates on RTC class performance and on-the-job training of new RTCs to TOC/SSOA and FTA.

FTA on-site observations of ROCC and interviews with new and veteran RTCs.

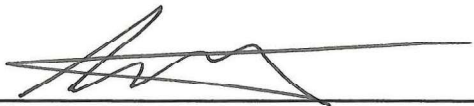
FTA review of scheduled and unscheduled overtime,

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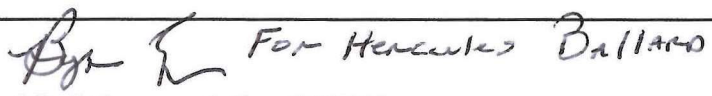
	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-1</b> Required Action <b>R-1-1-a</b>
	Corrective Action Plan (CAP)	

## 8 CAP Approval


### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)

09/10/15  
Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)


9/10/15  
Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

9/10/2015  
Date


  
 Louis J. Brown  
 Acting Chief Safety Officer (SAFE)

9/10/15  
Date

  
 Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)

9/11/15  
Date

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-2</b> Required Action <b>R-1-2-a</b>
	Corrective Action Plan (CAP)	

Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-2-a**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-2</b> Required Action <b>R-1-2-a</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-2** and its Required Action **R-1-2-a**.

### 2.1 FTA Finding

Rail Traffic Controller (RTC) re-certification has not occurred as required.

### 2.2 FTA Required Action

WMATA must complete and maintain required annual re-certifications for RTCs.


## 3 Analysis and Recommendation

### 3.1 Analysis

After an assessment by the Deputy General Manager of Operations Office in December 2014, the Rail Operations Control Center (ROCC) identified that annual certification requirements were out of date (some as late as 2012). The current certification program consists of a written test and observation during daily job activities. Metro will recertify 100% of ROCC staff by December 31, 2015 in order to achieve a baseline. Upon completion of the new training program, additional recertification requirements and curriculum will be added. Annual certifications will be utilized as well as refresher training for controllers that have been out of service for a prolonged period of time. The new recertification training will consist of an 8 hour block of refresher training on the MSRPH, mandatory training on any changes or additions to SOPs, written tests to ensure comprehension, and hands-on exercises in which evaluators will grade practical application required skills.

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### 3.2 Recommendation

The recommended course of action to address this deficiency is to certify 100% of all ROCC personnel with the current certification process in order to achieve a baseline standard and bring the ROCC into compliance. Additionally, the new RTC recertification training will include refresher training, territory familiarization (road days), scenarios and practical exercises, overviews of lessons learned from prior incidents, a comprehensive review on emergency procedures, additional training and evaluations on radio protocol, a review of any unusual operating conditions, and a review of the MSRPH and SOP updates.

## 4 Action Plan Description


Under this CAP, ROCC Assistant Superintendents will work with their personnel to identify areas within the schedule to recertify their controllers. Controllers will have their scores validated and recorded on file. Additionally, a new certification program will be developed with cooperation from the Rail Operation Quality Training (ROQT) Department, and will focus on the certification of controllers and Assistant Superintendents.

### 4.1 Approach

ROCC has already certified between 60-75% of its current controllers for 2015. Efforts are underway to schedule the remaining controllers for their annual certification. Once all controllers are certified, we will have achieved the standard. Once developed, the new certification program will be given to controllers throughout the year. The goal is to break down the certification times throughout the year into a quarterly basis in order to prevent overwhelming the training department. The same certification will be given throughout the year and feedback will be incorporated to address the changes of the railroad. A database will be built that tracks the status of controller certification and will auto-populate a notice beginning 90 days out for when the controller will be due their next certification. If at any time an RTC fails to certify or is found to be outside of tolerance for certification dates, the ROCC management team will immediately remove the RTC from service until recertification has occurred and will also immediately notify the TOC/SSOA.

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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-2</b> <b>Required Action R-1-2-a</b>
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Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Verification list	List provided by the Superintendents verifying annual certification has been completed	Robert Relyea	09/30/15
2)	New certification test	Development of the new rigorous certification program	Robert Relyea/ Lauren Semper-Scott	12/31/16
3)	Current certification results	Document that tracks the completion of certification training for all RTCs	Gregory Wortman	Recurring
4)	ELM tracker for certification	Development of a system to track certification progress in ELM	Mike Harris, Dr. Scott	12/31/16
5)	Audit schedule	Audit schedule that will be used to ensure compliance is both obtained and maintained	Michael DiNatale	12/31/15
6)	New audit policy	Policy that will provide guidance for audits related to maintaining compliance with FTA actions	Gregory Wortman	12/31/15
7)	Internal safety audit	Review of the recertification process	Manael Kennerly	Recurring
8)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	07/31/17


#### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
By-name list with certification dates	07/20/15	09/30/15
100% certification of all current controllers	07/20/15	12/31/15
Development of new certification tests	08/01/15	12/31/16
Audit schedule developed	10/01/15	12/31/15
Audit policy distributed to employees	12/30/15	12/31/15

#### 4.3 Budget / Cost Estimate


This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Robert Relyea		List with certification dates	Robert Relyea	09/30/15
ROQT	Lauren Semper-Scott		New certification tests	Robert Relyea	12/31/16
ROCC	Gregory Wortman		New audit policy	Michael DiNatale	12/31/15
QAAW	Michael DiNatale		Audit schedule	Gregory Wortman	12/31/15
SAFE	Manael Kennerly		Internal safety audit	Robert Relyea	Recurring
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	07/31/17

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

100 percent recertification of all RTCs under the new certification program and schedule.

#### 7 Verification

Monthly/Quarterly updates on re-certification program provided to TOC/SSOA and FTA.

FTA review of all recertification materials.

FTA on-site observation of ROCC and interviews with new and veteran RTCs

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FTA SMI (MAR 16 – APR 3 2015)

Finding **R-2**Required Action **R-1-2-a**

Corrective Action Plan (CAP)

## 8 CAP Approval

## APPROVED BY:

09/10/15

Action Coordinator

Date

Gregory Wortman

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For Hercules Ballard

9/10/15

Department Head

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Managing Director of Rail Transportation (RTRA)

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Date

Deputy General Manager, Operations (DGMO)

9/10/15

Louis J. Brown

Date

Acting Chief Safety Officer (SAFE)


9/11/15

Jack Requa

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Interim General Manager/Chief Executive Officer (GM/CEO)

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-3-a**


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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-3</b> <b>Required Action R-1-3-a</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-3** and its Required Action **R-1-3-a**.

### 2.1 FTA Finding

Rail Traffic Controllers (RTCs) receive little refresher training and no road days.

### 2.2 FTA Required Action

WMATA must establish a program to provide each RTC with mandatory road days for territory familiarization and to keep up with changing system elements.

## 3 Analysis and Recommendation


### 3.1 Analysis

The addition of positions within the Rail Operation Control Center (ROCC) is intended to alleviate the issue of controllers not having enough time to participate in training outside of the ROCC. Part of the redesigned training consists of an exchange program between the Field Division and the ROCC meant to widen the perspective in which controllers operate and improve efficiencies within Metro. Each controller will be required to complete a ride-along on their primary and alternate lines no less than twice per calendar year, and will be required to visit the field to better understand the needs of the Field and Division Superintendents.

### 3.2 Recommendation

The recommended course of action to address this deficiency is to require RTCs to visit the field and receive additional refresher training on an ongoing basis.

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#### 4 Action Plan Description

Under this CAP, Metro will forecast the schedules of the RTCs to ensure adequate time is allowed to visit the field for refresher training no less than two times per year. Additionally, any changes that are made to the railroad will be addressed through subsequent site visits in the field for RTCs that are affected. ROCC will work with the Field Division to establish training classes centered on railway familiarization, troubleshooting procedures, train dispatching, and interlocking operations.

##### 4.1 Approach

ROCC will begin sending RTCs to the field on July 15-16, 2015 in order to receive the first round of refresher training as part of a field training program. The first batch of training will focus on refresher training for train car operations and troubleshooting common problems. Upon completion, ROCC management will look at sending RTCs to the field to ride along the lines in which they provide services for. Additionally, management will also coordinate for RTCs to meet with station managers along the way to build rapport and an understanding of what personnel in the field need from ROCC in order to be successful. The Rail Office of Quality Training (ROQT) will be integrated in this process to observe all roadway training. This training is not optional and will be required as part of the recertification process for all RTCs.

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	<b>Corrective Action Plan (CAP)</b>	

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Roadway program schedule	Schedule for RTCs to get to participate in the ride along program	Robert Relyea	10/31/15
2)	Roadway program	Formal development of a roadway ride-along program with forms, procedures, training criteria, and materials.	Dr. Scott	07/31/16
3)	Roadway criteria	Development and implementation of formal and specific criteria for roadway ride along program	Robert Relyea	07/31/16
4)	Audit schedule	Audit schedule that will be used to ensure compliance is both obtained and maintained	Michael DiNatale	12/31/15
5)	New audit policy	Policy that will provide guidance for audits related to maintaining compliance with FTA actions	Gregory Wortman	12/31/15
6)	Quality Audit Report	The Office of Quality Assurance and Warranty (QAAW) performs scope verification and inspection of deliverables to ensure that all are completed as planned and expected	Michael DiNatale	12/31/16

#### 4.2 Schedule


Tasks	Estimated Start	Estimated Finish
Coordinate for refresher training	07/15/15	08/31/15
Have RTCs complete roadway ride along	07/15/15	12/31/16
Audit schedule developed	10/01/15	12/31/15
Audit policy distributed to employees	12/30/15	12/31/15

#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-3</b> Required Action <b>R-1-3-a</b>
	Corrective Action Plan (CAP)	

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris	D.H.	Initial roster and dates	Robert Relyea	10/31/15
ROCC	Candice Thomas	[Signature]	Initial roster and dates	Robert Relyea	10/31/15
RTRA	Dr. Scott	[Signature]	Roadway training course	Robert Relyea	07/31/16
ROCC	Gregory Wortman	[Signature]	New audit policy	Michael DiNatale	12/31/15
QAAW	Michael DiNatale	[Signature]	Audit schedule	Gregory Wortman	12/31/15
SAFE	Manael Kennerly	[Signature]	Internal Safety Audit of training course	Robert Relyea	07/31/16
QAAW	Michael DiNatale	[Signature]	CAP deliverables verified and reviewed	Gregory Wortman	12/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures


100 percent implementation and successful completion of roadway ride along program by the end of 2016 for all RTC.

#### 7 Verification

Monthly/Quarterly updates on status of roadway ride along day re-recertification program provided to TOC/SSOA and FTA.


FTA review of roadway ride along day program materials and on-site observation.

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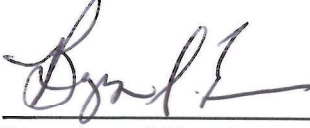
	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-3</b> Required Action <b>R-1-3-a</b>
	Corrective Action Plan (CAP)	

## 8 CAP Approval


### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)

09/10/15  
Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)

09/10/15  
Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

9/10/2015  
Date


  
 Louis J. Brown  
 Acting Chief Safety Officer (SAFE)

9/10/15  
Date

  
 Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)

9/11/15  
Date

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	Corrective Action Plan (CAP)	

Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-3-b**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-3</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-3-b</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-3** and its Required Action **R-1-3-b**.

### 2.1 FTA Finding

Rail Traffic Controllers (RTCs) receive little refresher training and no road days.

### 2.2 FTA Required Action

WMATA must require all RTCs to obtain and maintain Level 4 Roadway Worker Protection (RWP) training and certification.

## 3 Analysis and Recommendation

### 3.1 Analysis

Currently, the majority of the office of Rail Transportation (RTRA) workers are Level 2 RWP qualified. Level 2 RWP provides the skills required to enter the roadway under supervision of the Roadway Worker In Charge (RWIC) and to perform basic functions of a work crew.


### 3.2 Recommendation

Metro will ensure that the Rail Operation Control Center (ROCC) will work with Rail Operation Quality Training (ROQT) Department to establish training opportunities to ensure all ROCC personnel are Level 4 RWP qualified.

## 4 Action Plan Description

Under this CAP, ROCC management will work through ROQT to receive the required slots for the training. All current RTCs will be required to certify at the Level 4 RWP course and supervisors will be proactive at ensuring that certification is maintained and does not expire. For future RTCs and

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new ROCC employees, Level 4 RWP will be incorporated as part of the mandatory initial training program.


#### 4.1 Approach

ROCC will begin sending current employees to Level 4 RWP courses as the individual schedules and training course dates become available. ROCC will have all employees certified with Level 4 RWP as part of the new push on sustainment training. RTCs will be required to maintain a Level 4 RWP certification while serving in the Control Center. The status of certifications will be tracked in the updated ELM system.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Report of Level 4 RWP class	Course required for RWP	Robert Relyea, Lauren Semper-Scott	12/31/15
2)	RWP policy letter for ROCC	A new policy letter that will require all RTCs to initially certify at the Level 4 RWP course and maintain a Level 4 RWP certification for subsequent years	Gregory Wortman	10/30/15
3)	Audit schedule	Audit schedule that will be used to ensure compliance is both obtained and maintained	Michael DiNatale	12/31/15
4)	New audit policy	Policy that will provide guidance for audits related to maintaining compliance with FTA actions	Gregory Wortman	12/31/15
5)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/16

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#### 4.2 Schedule










Tasks	Estimated Start	Estimated Finish
Certify all ROCC personnel at Level 4 RWP	08/01/15	12/31/16
Publish RWP policy letter for ROCC	08/30/15	10/30/15
Audit schedule developed	10/01/15	12/31/15
Audit policy distributed to employees	12/30/15	12/31/15

#### 4.3 Budget / Cost Estimate


This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris		Initial roster and dates	Robert Relyea	10/30/15
ROCC	Candice Thomas		Initial roster and dates	Robert Relyea	10/30/15
ROCC	Gregory Wortman		RWP policy letter for ROCC	Robert Relyea	10/30/15
ROQT	Lauren Semper-Scott		Level 4 RWP course	Lauren Semper-Scott	12/31/16
Audit schedule developed	Michael DiNatale		Audit schedule developed	Robert Relyea	12/31/15
ROCC	Gregory Wortman		Audit policy distributed to employees	Robert Relyea	12/31/15
SAFE	Manael Kennerly		Internal Safety Audit	Robert Relyea	12/31/16
QAAW	Michael DiNatale		Audit schedule developed	Robert Relyea	12/31/15
			CAP deliverables verified and reviewed	Gregory Wortman	12/31/16

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## 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

## 6 Performance Measures

100 percent of RTCs successfully complete and achieve Level 4 RWP certification by 12/31/2016 and maintain such certification.

## 7 Verification


Monthly/Quarterly updates on RTC Level 4 RWP certification progress provided to TOC/SSOA and FTA.

FTA review of Level 4 RWP materials used for RTC training.

FTA review of the RWP policy letter for the ROCC.

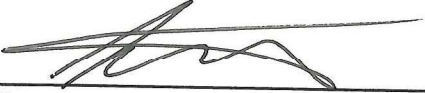
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### 8 CAP Approval


#### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)

09/10/15  
Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)

9/10/15  
Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

9/10/2015  
Date


  
 Louis J. Brown  
 Acting Chief Safety Officer (SAFE)

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
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**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-4-a**

**CAP Closed By FTA on-04-18-2016**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-4</b> Required Action <b>R-1-4-a</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-4** and its Required Action **R-1-4-a**.

### 2.1 FTA Finding

There is a high level of noise and distraction in the Rail Operation Control Center (ROCC), and a lack of electronic controls in the Asset Information Management (AIM) system to prevent errors.

### 2.2 FTA Required Action

Metro must complete its assessment regarding the identification of critical versus non-critical notifications and alarms in the ROCC, and options for removing non-critical notifications must be implemented.

## 3 Analysis and Recommendation


### 3.1 Analysis

The amount of alarms that occur in the AIM system could be drastically reduced to a number that is both controllable and observable. The current numbers of alarms (both audible and visual) serve as a huge distraction to ROCC personnel.

### 3.2 Recommendation

The recommended course of action to address this deficiency is to move forward with identifying alarms that can be reclassified to events in order to cut down on audible and visual distractors.

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#### 4 Action Plan Description


Under this CAP, Metro will be gathering input from Rail Traffic Controllers (RTCs), Maintenance Operation Control (MOC) Supervisors, and ROCC Assistant Superintendents to identify alarms on the AIM system that could be changed from audible or visual to list as an event on a spreadsheet.

##### 4.1 Approach

ROCC management initially met with the Information Technology (IT) department on June 18<sup>th</sup> 2015 to discuss the ability to delete alarms that were self-activating and self-correcting. It was decided that if an alarm required no acknowledgement, then it shouldn't be utilized in a capacity that could distract controllers. RTCs would focus on major alarms and the rest of the minor alarms would be turned into "events" that would not flash and would be stored on a separate screen. Access to events would still be accessible for reporting requirements. On July 21<sup>st</sup> 2015, ROCC management conducted its second meeting regarding alarms and began making progress on deleting several alarms that were no longer needed. Additionally, ROCC assigned roles for alarms to the responsible parties in order to take those distractions away from RTC personnel. Upon completion, the Chief Safety Officer will sign off on the approval for the removal of alarms from the AIM system.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Alarm list Memo	List of questionable alarms	Robert Relyea, Tiffani Jenkins	10/31/15
2)	Report of alarm solution	Vendor/IT provided solution for categories of alarms	Kevin Borek	12/31/15
3)	QAAW and Safety memorandum	A memorandum that requires SAFE and QAAW to sign off on the alarms that have been removed from the system or transitioned to events	Manael Kennerly, Michael DiNatale	12/31/15
4)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	07/31/16

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#### 4.2 Schedule


Tasks	Estimated Start	Estimated Finish
Alarm List	06/18/15	10/31/15
Published memorandum through QAAW and SAFE	11/01/15	12/31/15
Alarm Solution	06/18/15	12/31/15

#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Robert Relyea		Alarm List	Kevin Borek	10/31/15
IT	Kevin Borek		Alarm Solution	Robert Relyea	12/31/15
QAAW	Michael DiNatale		Approval Memorandum	Robert Relyea	12/31/15
SAFE	Manael Kennerly		Approval Memorandum	Robert Relyea	12/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	07/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.


#### 6 Performance Measures

Reduction in alarm notification at ROCC (to 30,000 daily alarms).

#### 7 Verification

Monthly/Quarterly updates on alarm removal/re-categorization provided to TOC/SSOA and FTA.


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FTA on-site observation of ROCC to re-assess level of distraction related to alarms.


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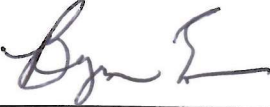
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## 8 CAP Approval

### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)

09/10/15  
Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)

9/10/15

Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

9/10/2015  
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 Louis J. Brown  
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**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-4-b**


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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. R-4 and its Required Action R-1-4-b.

### 2.1 FTA Finding

There is a high level of noise and distraction in the Rail Operation Control Center (ROCC), and a lack of electronic controls in the Asset Information Management (AIM) system to prevent errors.

### 2.2 FTA Required Action


Metro must conduct an engineering assessment, and implement the results, regarding options to reduce noise in the ROCC, including ambient noise and feedback from the radio system.

## 3 Analysis and Recommendation

### 3.1 Analysis

There is a rampant amount of noise that is present on the Control Center floor. The high level of noise is contributed by audible alarms, several different radio channels that provide constant feedback, microphones that Rail Traffic Controllers (RTCs) and Rail Operation Information Center (ROIC) supervisors use to communicate with mainline operators and stations, emergency service radios, and verbal noise when the Rail Disruption Line is used to pass reports to Executive management.

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### 3.2 Recommendation

The recommended course of action to address this deficiency is to have an engineering assessment conducted to address and assess noise levels and look at possible ways to reduce levels of noise within the control center.


## 4 Action Plan Description

Under this CAP, an assessment will be requested to monitor for levels of noise within the ROCC and possible reduction measures would be investigated. This assessment would also suggest possible courses of action to take to reduce the levels of noise to an acceptable level.

### 4.1 Approach

ROCC will coordinate to have an assessment conducted and ensure the communications equipment is utilized properly. Some headsets are currently not utilized due to the inability of the Assistant Superintendent to monitor Ops 1, Ops 2, and Ops 3 stations simultaneously. ROCC will look at our peer institutions to see the latest technological solutions that they have implemented. This assessment can be conducted by either an internal department or an outside vendor and will look at a cost-effective assessment for noise levels within the ROCC and actions that can be taken to reduce the overall levels of ambient noise. Options need to be investigated that could possibly include a new radio system. The current system does not allow the radio to broadcast once a set of headphones is plugged in. The inability to monitor the radio is a massive problem for the Assistant Superintendents on the floor. Metrics for success will be based off of recommendations for acceptable levels of noise from the assessment.

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Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Manager's Report	An executive summary based off of industry best practices as observed at other Rail Control Centers	Robert Relyea	11/01/15
2)	Initial Scope of Work	Definition of scope of work for the noise assessment	Robert Relyea	10/30/15
3)	Report of Noise Assessment	Noise assessment conducted with valid recommendations for solutions	Al Fazio	11/31/15
4)	Capital improvement project	Project to implement the findings of the engineering assessment	Marshall Epler	12/31/16
5)	Radio analysis	Analysis and explanation regarding the determination that the current radio system cannot broadcast with headsets and further analysis of alternatives for the Assistant Superintendent to monitor all channels simultaneously	Marshall Epler	12/31/15
6)	QAAW and Safety memorandum	A memorandum that requires SAFE and QAAW to sign off on the alarms that have been removed from the system or transitioned to events	Manael Kennerly, Michael DiNatale	12/31/15
7)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	01/07/17

#### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Manager's Report	10/01/15	11/01/15
Initial Scope of Work	08/30/15	10/30/15
Noise Assessment	10/01/15	11/31/15
Radio Analysis	10/01/15	12/31/15
Capital Improvement Project	12/31/15	12/31/16
Published memorandum through QAAW and SAFE	11/01/15	12/31/15

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#### 4.3 Budget | Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to complete this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Robert Relyea		Manager's Report	Third Party Consultant	11/01/15
QAAW	Michael DiNatale		Approval Memorandum	Robert Relyea	12/31/15
SAFE	Manael Kennerly		Approval Memorandum	Robert Relyea	12/31/15
ROCC	Consultant		Noise Assessment	Robert Relyea	11/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	01/07/17

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Completion of engineering assessment and implementation of recommendations.

Reduction in noise levels as measured in decibels.

#### 7 Verification

Monthly/Quarterly updates on noise abatement provided to TOC/SSOA and FTA.

FTA review of engineering assessment, recommendations, and capital improvement project.

FTA observation of ROCC to re-assess noise levels and distraction.

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Finding **R-4**  
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Corrective Action Plan (CAP)

## 8 CAP Approval


## APPROVED BY:

  
Action Coordinator  
Gregory Wortman  
Assistant Director of Rail Operations Control Center (ROCC)  
09/10/15  
Date


  
Department Head  
Hercules Ballard  
Managing Director of Rail Transportation (RTRA)  
9/10/15  
Date

  
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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015


**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-4-c**

**CAP Closed By FTA on-04-18-2016**

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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-4</b> <b>Required Action R-1-4-c</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. R-4 and its Required Action R-1-4-c.

### 2.1 FTA Finding

There is a high level of noise and distraction in the Rail Operation Control Center (ROCC), and a lack of electronic controls in the Advanced Information Management (AIM) system to prevent errors.

### 2.2 FTA Required Action

Until such time as electronic records of train movement are readily available to on-duty Rail Traffic Controllers (RTC), Metro must ensure that its RTCs maintain a paper- based record of all mainline train movements, signal by- passes, and unusual movements.

## 3 Analysis and Recommendation


### 3.1 Analysis

The AIM system is capable of generating electronic reports that are available to all personnel. ROCC currently utilizes paper-based reports for all unusual movements, and can implement a policy to print out daily reports of all mainline movements to keep as continuity files.

### 3.2 Recommendation

The recommended course of action is to continue to utilize paper-based reports for unusual movements, delays lasting longer than 10 minutes to the customer or to the line, and for any emergency incident. Paper-based reports for all mainline train movements is not feasible due to the amount of movements that are conducted per day, nor is it an industry standard; additionally, there are no other railroads with similar headways using the type of movement

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logs as requested by the FTA. There are reports and data that are captured that can perform this function effectively for ROCC and should it be required, they can be generated on AIM.

#### 4 Action Plan Description


Under this CAP, Metro will continue to require the use of paper-based reports for the above-mentioned incidents. At the conclusion of each incident requiring a report, ROCC management will have Assistant Superintendents and Superintendents check the reports for accuracy and substance. The paper-based log that is kept for these movements will be utilized during shift briefings and it will include unusual train movements on the mainline and any incidents out of the ordinary to include near-misses.

##### 4.1 Approach

Metro will continue to perform reporting functions and maintain records of all unusual events. The written reports and records are reviewed weekly at the Track Delay meeting conducted by the Office of the Deputy General Manager of Operations (DGMO).

Deliverable		Description	Responsible Party	Estimated Completion
1)	Written Reports	A detailed written report that includes information on delays lasting longer than 10 minutes, unusual events, and any major incident	Robert Relyea, Allison Hall-King, Tiffani Jenkins	Recurring
2)	One week's worth of unusual movement reports	A typical week's worth of unusual movement reports that are intended to showcase the data that we collect	Deltrin Harris	10/15/15
3)	AIM printout report	A printout from the AIM system that shows train movements and how that data is captured	Deltrin Harris	10/15/15
4)	Policy letter	Documentation of the approach for ensuring RTCs are maintaining the paper logs	Deltrin Harris	10/31/15
5)	Unusual train movement list	A list that specifically states what is considered an unusual train movement and identifies when it should be logged	Deltrin Harris	10/31/15
6)	AIM Upgrade Plan	Plan that provides schedule and budget for upgrades to AIM system to ensure additional electronic controls and enhanced performance to prevent errors	Gregory Wortman	11/30/15
7)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/15

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#### 4.2 Schedule

Refer to 4.1 for scheduled dates.

#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris	D.H.	Written reports	Robert Relyea	Recurring
ROCC	Deltrin Harris	S.H.	AIM printouts	Robert Relyea	10/15/15
SAFE	Manael Kennerly	M.K.	Internal Safety Audit	Robert Relyea	12/31/15
QAAW	Michael DiNatale	M.D.	CAP deliverables verified and reviewed	Gregory Wortman	12/31/15

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

QAAW audit demonstrating 100% conformance with log utilization for tracking these movements.

#### 7 Verification

Monthly/Quarterly updates to TOC/SSOA.

FTA review of log and QAAW audit.

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FTA SMI (MAR 16 – APR 3 2015)

Corrective Action Plan (CAP)

Finding **R-4**  
Required Action **R-1-4-c**

## 8 CAP Approval

## APPROVED BY:

09/10/15

Action Coordinator

Date

Gregory Wortman

Assistant Director of Rail Operations Control Center (ROCC)

For Hercules Ballard

9/10/15

Department Head

Date

Hercules Ballard

Managing Director of Rail Transportation (RTRA)

9/10/2015

A. Robert Troup

Date

Deputy General Manager, Operations (DGMO)

9/10/15

Louis J. Brown

Date

Acting Chief Safety Officer (SAFE)


9/11/15

Jack Requa

Date

Interim General Manager/Chief Executive Officer (GM/CEO)

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-5-a**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-5</b>
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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-5</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-5-a</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-5** and its Required Action **R-1-5-a**.

### 2.1 FTA Finding

WMATA Rail Traffic Controllers (RTCs) are required to perform many tasks outside of industry standards.

### 2.2 FTA Required Action

WMATA must ensure RTCs workload and distraction do not interfere with the safe and efficient movement of trains.


## 3 Analysis and Recommendation

### 3.1 Analysis

The RTCs conduct a myriad of tasks throughout their shift based off of a priority list. Their first and foremost task is always the safe and efficient movement of trains throughout the system. After ensuring safe movement of trains, RTCs do their best to move trains based off of established headways and special events that are occurring throughout the system. Some of the additional tasks will be alleviated with the hiring of more controllers as discussed in Required Action R-1-1-a. In the meantime, management is looking at interdepartmental support for additional work tasks throughout the Rail Operations Control Center (ROCC) in order to alleviate the work load. The current day and mid shifts handle all of the revenue traffic and all of the tasks that are associated with moving passengers onboard trains. The OWL shift manages all of the track work and movement of maintenance vehicles during non-revenue hours. Although the MOC and ROIC sections are understaffed, they have the ability to assume

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responsibilities that are aligned with their job descriptions that were previously transferred to the RTCs.

### 3.2 Recommendation

The recommended course of action to address this deficiency is to have management conduct a review of tasks that are currently required for the RTCs to perform. Any tasks that may be delegated to employees in the Rail Operations Information Center (ROIC) and the Maintenance Operations Center (MOC) will be moved and delegated according to job scope and requirements. ROCC management will conduct an assessment of RTC workloads (task allocation assessment) across desks and shifts, including an analysis of options to reduce distraction and balance workload across desks.


## 4 Action Plan Description

Under this CAP, ROCC Superintendents will review the current tasks that RTCs are required to perform on a daily basis. Additionally, MOC and ROIC Superintendents will conduct the same analysis to determine if work tasks and priorities are nested properly and aligned with duty descriptions. This will provide a clear demarcation for duties and responsibilities at the RTC level.

### 4.1 Approach

ROCC is currently evaluating the workload and task requirements for individuals working within the Control Center. The management team will do a thorough analysis of requirements and will pass the recommendations along to alter job descriptions and requirements.

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Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Assessment of RTC daily workloads	A clear description of daily tasks and responsibilities for RTCs	Deltrin Harris	10/31/15
2)	Task allocation adjustment	A description of which tasks have been reallocated based off of workload and duty description	Deltrin Harris	12/31/15
3)	Updated duty description	A duty description that accurately describes required tasks based off of workload assessment	Deltrin Harris	12/31/15
4)	Management approach to positions	A strategy for how each RTC position (Radio, Buttons, Support) interacts with each other	Deltrin Harris	12/31/15
5)	Study report	A study to verify that the new duty descriptions and new controller positions effectively reduce distraction and more evenly distribute workload across desks and shifts. Study includes a follow-up staffing assessment and required actions for further implementation	Gregory Wortman	03/31/16
6)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	04/15/16


#### 4.2 Schedule

Refer to 4.1 for scheduled dates.

#### 4.3 Budget / Cost Estimate






This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris		Task List	Robert Relyea	10/31/15
ROCC	Candice Thomas		Task List	Robert Relyea	10/31/15
ROCC Director	Robert Relyea		Updated job descriptions	Tawnya Moore-McGee	12/31/15
SAFE	Manael Kennerly		Internal audit of job descriptions	Robert Relyea	12/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	04/15/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Documentation and supporting records to demonstrate redistribution of work to new RTCs and other desks (MOCC, ROIC, etc.)

#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and the FTA.

FTA review of updated procedures, SOPs, and other related documents.

FTA observation of work level activity and distraction.

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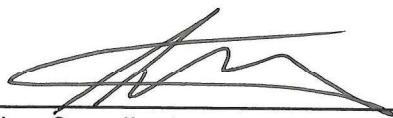
FTA SMI (MAR 16 – APR 3 2015)


Finding **R-5**Required Action **R-1-5-a**


## Corrective Action Plan (CAP)

## 8 CAP Approval


## APPROVED BY:

  
Action Coordinator  
Gregory Wortman  
Assistant Director of Rail Operations Control Center (ROCC)  
09/10/15  
Date


 For Hercules Ballard  
Department Head  
Hercules Ballard  
Managing Director of Rail Transportation (RTRA)  
9/10/15  
Date

  
A. Robert Troup  
Deputy General Manager, Operations (DGMO)  
9/10/2015  
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Date

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-6</b> Required Action <b>R-1-6-a</b>
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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-6-a**

**CAP Closed By FTA on-03-15-2017**


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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-6</b> <b>Required Action R-1-6-a</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-6** and its Required Action **R-1-6-a**.

### 2.1 FTA Finding

Radio Discipline is poor.

### 2.2 FTA Required Action

WMATA must establish and enforce a proper protocol for language and terminology that is used over the radio – to include 100 percent word-for-word read-back for safety-related instructions and unusual train movements.

## 3 Analysis and Recommendation


### 3.1 Analysis

This is an issue of lack of discipline and lack of a standardized radio protocol within the Rail Operation Control Center (ROCC). ROCC, in conjunction with the Field Division, will develop the standardized communication list for the controllers and train operators to use and will adhere strictly to it. This system will be modeled for brevity, clarity, and efficiency in communications. Additionally, certification courses are being researched for our controllers to receive formal training on radio etiquette and dispatching.

### 3.2 Recommendation

The recommended course of action to address this deficiency is to work with Rail Operation Quality Training (ROQT) and the Field Division in order to ensure a standard radio protocol is established and enforced. Once established, a training course will be developed in order to

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ensure all expectations for communications on the radio are taught to both Rail Traffic Controllers (RTCs) and Train Operators.

#### 4 Action Plan Description

Under this CAP, Metro will utilize best practices from multiple fields (air traffic control, emergency dispatching, and military radio protocol procedures) to develop a standard operating procedure (SOP) for radio controls.


##### 4.1 Approach

ROCC will work with ROQT and the Field Division to develop the new radio communications course. The end state is to build a program that can be utilized with both refresher training and new employee training. This subject area will be tested and incorporated in all training scenarios and input will be solicited from all parties that are affected by the FTA required action.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Survey on current radio issues	A comprehensive survey that gathers input from rail traffic controllers and train operators on problems with radio communications	Robert Relyea, Byron England	10/31/15
2)	Radio Operations Course	A comprehensive course given to RTCs and all personnel required to transmit communications on a radio	Lauren Semper-Scott	07/31/15
3)	QAAW review	A semi-annual review of audio tapes to ensure RTCs and train operators are following protocol	Michael DiNatale	Recurring
4)	Daily exception log	A daily log that is kept by the Assistant Superintendents that makes note of any improper radio protocol. This will be maintained for one quarter and will then switch to the QAAW review/audit	Deltrin Harris	03/31/16
5)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/16

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#### 4.2 Schedule


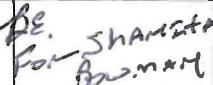







Tasks	Estimated Start	Estimated Finish
Review current radio procedures	07/15/15	10/31/15
Develop radio operations course	09/01/15	07/31/16
Implement new radio operations course	07/31/16	12/31/16
QAAW review	03/01/16	Recurring
Daily exception log	01/01/16	03/31/16

#### 4.3 Budget / Cost Estimate


This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris		RTC survey on radio problems	Gregory Wortman	10/30/15
Field Division	Shanita Bowman		Train Operator survey on radio problems	Gregory Wortman	10/30/15
ROQT	Gregory Wortman		Summary of radio problems (ROCC)	Lauren Semper-Scott	10/31/15
ROQT	Byron England		Summary of radio problems (field)	Lauren Semper-Scott	10/31/15
ROQT	Lauren Semper-Scott		Radio Operations Course	Robert Relyea	07/31/15
ROCC	Deltrin Harris		Daily exception log	Michael DiNatale	03/31/16
QAAW	Michael DiNatale		QAAW review	Robert Relyea	03/31/16
SAFE	Manael Kennerly		Internal Safety Audit	Robert Relyea	12/31/16
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	12/31/16

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## 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

## 6 Performance Measures

Quality audit reports indicating demonstrable improvement in radio communication improvement. Completion of radio protocol training by RTCs, train operators, and others utilizing the radio system.

## 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

FTA observation of radio communications.

FTA review of a comprehensive Survey and Radio Operations Course, including an analysis of the implementation rule 1.74 and the use of Alpha-Numeric radio language.

FTA review of procedures utilized to observe and evaluate the quality of radio communications.

FTA review of the compliance with procedures and records from Rail Transportation, Rail QA, QAAW, Internal Audits, Safety, etc. for implementation, training, and compliance with radio rules and procedures.

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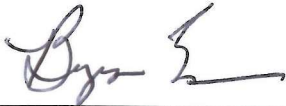
Finding **R-6**Required Action **R-1-6-a**

Corrective Action Plan (CAP)

## 8 CAP Approval

## APPROVED BY:

  
Action Coordinator  
Gregory Wortman  
Assistant Director of Rail Operations Control Center (ROCC)  
09/10/15  
Date


  
Department Head  
Hercules Ballard  
Managing Director of Rail Transportation (RTRA)  
9/10/15  
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Interim General Manager/Chief Executive Officer (GM/CEO)  
9/11/15  
Date

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-6-b**

**CAP Closed By FTA on-08-04-2017**


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	Corrective Action Plan (CAP)	

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-6** and its Required Action **R-1-6-b**.

### 2.1 FTA Finding

Radio Discipline is poor.

### 2.2 FTA Required Action

As part of the radio protocol required in R-1-6-a, WMATA must establish an approach for communicating and managing all speed restrictions that requires two-way communication between the Rail Operation Control Center (ROCC) and train operator and takes full advantage of available electronic Advanced Information Management (AIM) system features.

## 3 Analysis and Recommendation


### 3.1 Analysis

Current radio procedures are not enforced to ensure that speed restrictions are both given by the Rail Traffic Controller (RTC) and confirmed by the Train Operator. This is not a standard practice and seems to be sporadic amongst RTCs.

### 3.2 Recommendation

The issue with speed restrictions will be addressed through the strict enforcement of radio procedures requiring 100 percent acknowledgement of speed restrictions throughout the system. Furthermore, ROCC personnel will receive additional training on the AIM system and its capabilities in August 2015 from ARINC on capabilities and functions of the system in order to take full advantage of the electronic system features.

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#### 4 Action Plan Description

Under this CAP, ROCC management will capitalize on subject matter expertise from the developers of the AIM system in order to leverage the capabilities that the current AIM system offers. Assistant Superintendents will also monitor radio traffic between RTCs and Train Operators to ensure speed restrictions are repeated back as confirmation.

##### 4.1 Approach

Metro will ensure that the ROCC works with the Rail Operation Quality Training (ROQT) Department and the Field Division to develop the new radio communications course. This will be a joint project to ensure that Train Operators are aware of their requirement to repeat back speed restrictions in a word-by-word acknowledgement.


Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Radio operator course	A new course developed by ROQT that will provide a standardized format for radio communications	Robert Relyea, Lauren Semper-Scott	07/31/16
2)	AIM training course	A course being offered by Rockwell Collins (ARINC Rail) to leverage the capabilities of the AIM system	Robert Relyea, Rockwell Collins	10/31/15
3)	Capabilities list	List of capabilities of the AIM system as presented by Rockwell Collins to support speed restriction management	Tim Shuppa	12/31/15
3)	SOP for manual speed restrictions	A new SOP that clearly defines procedures for manual speed Restrictions and communications with trains	Robert Relyea	12/31/15
4)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/16

##### 4.2 Schedule

Tasks		Estimated Start	Estimated Finish
Review current radio procedures		07/15/15	08/30/15
Develop radio operator course		09/01/15	07/31/16
Create new SOP		10/01/15	12/31/15
Attend AIM course		08/15/15	10/31/15

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#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROQT	Lauren Semper-Scott		Radio Operator Course	Robert Relyea	07/31/16
ROCC	Robert Relyea		SOP for manual speed restrictions	Lauren Semper-Scott	12/31/15
IT	Tim Shoppa		ARINC training course on AIM	Robert Relyea	10/31/15
SAFE	Manael Kennerly		Internal safety audit	Robert Relyea	12/31/16
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	12/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Quality audit reports reflecting demonstrable improvement in quality of radio communications and performance of 100% read-backs of manual speed restrictions.

#### 7 Verification


Monthly/Quarterly updates provided to TOC/SSOA and FTA

Quality Reports

FTA observation of radio communications

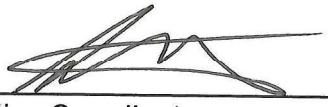
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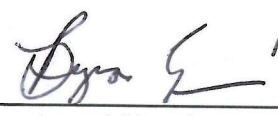
## 8 CAP Approval

### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)


09/10/15

Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)

09/10/15

Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

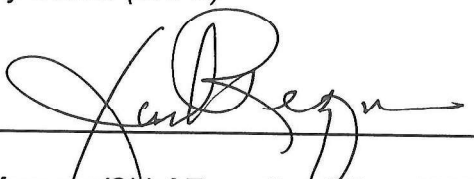
9/10/2015

Date

  
 Louis J. Brown  
 Acting Chief Safety Officer (SAFE)

9/10/15


Date

  
 Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)

9/11/15

Date

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-7-a**

**CAP Closed By FTA on-11-09-2017**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-7</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-7-a</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-7** and its Required Action **R-1-7-a**.

### 2.1 FTA Finding

WMATA's Rail Operation Control Center (ROCC) lacks formal procedures, manuals, and checklists.

### 2.2 FTA Required Action

WMATA must establish procedural checklists for ROCC staff to implement the Standard Operating Procedures (SOP) attached to the Metrorail Safety Rules and Procedures Handbook (MSRPH).

## 3 Analysis and Recommendation


### 3.1 Analysis

This is an issue of lack of institutional knowledge. Metro already has multiple checklists that are available to all employees within the ROCC. This issue revolves around a lack of familiarity of systems and rules; not the availability of resources.

### 3.2 Recommendation

Metro will work with the Rail Operation Quality Training (ROQT) Department to ensure that all Standard Operating Procedures are taught and tested during the initial training period in the ROCC. During annual refresher training, scenarios will be developed that will test the RTCs knowledge on the implementation of the procedures and regulations according to SOPs. Metro will also work with the Office of Vehicle Program Services to develop hard copy checklists with the intention of moving to an electronic copy in the future. The checklists that are provided will

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serve as reference material for the RTCs and is not mandatory for completing after each incident.


#### 4 Action Plan Description

Under this CAP, Metro will work with ROQT to identify ways in which the training curriculum can be modified to place an emphasis on the institutional knowledge required of our RTCs. This will be incorporated with the next new class of controllers and will be an issue that is highlighted during annual training and refresher training.

##### 4.1 Approach

ROCC will work with ROQT to develop this product. Input will be solicited from RTCs and Assistant Superintendents to decide on the format and delivery. ROQT will be consulted on how to best incorporate these into the training curriculum. ROCC has already met with the Office of Vehicle Program Services to begin coordination on the development of new checklists. These checklists will eventually be stored online and be accessible to everyone.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	SOP training aid	A graphical training aid that will serve as a quick reference guide for RTCs	Brian Clarke	12/31/15
2)	Updated curriculum	An updated course of instruction that will teach and test knowledge related to SOPs	Lauren Semper-Scott	12/31/15
3)	Checklist book	A binder that will hold all checklists for the ROCC, ROIC, and MOCC	Deltrin Harris	12/31/15
4)	SOP review	Joint SOP review between ROCC and OEM to ensure accuracy	Robert Relyea, Rod Bodmer	11/30/15
5)	SOP binder replication	A copy of the binder that will be on each desk within the ROCC that is provided to the FTA	Robert Relyea	12/31/15
6)	Course on usage of checklists	A course that was requested by the FTA on how to use checklists	Robert Relyea	12/31/15
7)	Management certification memo	Memorandum from ROCC management stating that all personnel have been trained on the usage of checklists and that they are current and up to date	Robert Relyea	Recurring
8)	Checklist Usage Memorandum/Bulletin	Memorandum/Bulletin from ROCC management stating that all personnel are required to use the checklists for incident management	Robert Relyea	01/08/16
9)	Testing and Observation Program Plan	Testing and observation program to assess the use of checklists during incidents and require turn-in of completed checklists at the end of duty.	Gregory Wortman	02/10/16
10)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	02/27/16
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#### 4.2 Schedule







Tasks	Estimated Start	Estimated Finish
Distribute current checklists	07/31/15	08/31/15
Develop new electronic checklists	08/04/15	12/31/15
Develop new checklist book	10/01/15	12/31/15
Develop new curriculum and tests	09/01/15	12/31/15
Joint SOP review	10/30/15	11/30/15

#### 4.3 Budget / Cost Estimate


This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris		SOP Checklists	Brian Clarke	10/31/15
TIES	Brian Clarke		Electronic Checklists	Robert Relyea	12/31/15
ROCC	Deltrin Harris		Book of checklists	Robert Relyea	12/31/15
ROQT	Robert Relyea		Input for updated curriculum	Lauren Semper-Scott	12/31/15
SAFE	Manael Kennerly		Internal safety audit	Robert Relyea	12/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	02/27/16

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## 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

## 6 Performance Measures

Completion and implementation of updated SOPs and tools.

Quality reports on RTC training and demonstrated knowledge and use of updated SOPs and tools.

Completion and implementation of training plan.

## 7 Verification


Monthly/Quarterly updates provided to TOC/SSOA and FTA.

FTA review of quality reports.

FTA observation of ROCC.


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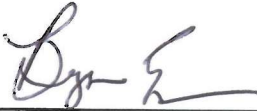
## 8 CAP Approval

### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)


09/10/15

Date

  
 Department Head  
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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-7-b**

**CAP Closed By FTA on-06-05-2017**


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	<b>Corrective Action Plan (CAP)</b>	

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-7** and its Required Action **R-1-7-b**.

### 2.1 FTA Finding

Metro's Rail Operation Control Center (ROCC) lacks formal procedures, manuals, and checklists.

### 2.2 FTA Required Action

Metro must enhance Rail Traffic Controller (RTC) reference materials to direct internal operations at the ROCC, including the use of the Advanced Information Management system, visual schematics of Metro stations and facilities, and internal ROCC administrative policies and procedures.

## 3 Analysis and Recommendation


### 3.1 Analysis

ROCC personnel already have access to a massive visual display of the Advanced Information Management (AIM) system that depicts real-time movement of trains, status of equipment, and layout of stations. Additionally, the Metrorail Safety Rules and Procedures Handbook (MSRPH), the Roadway Worker Protection (RWP) guide, and the ROCC operations manual are all available on the ROCC floor.

### 3.2 Recommendation

ROCC management will work with the Rail Operation Quality Training (ROQT) Department to develop graphical training aids that serve as a quick reference guide for RTCs to use during shifts at their consoles. Additionally, ROCC will build a publications library that will serve as

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another point of reference within the Control Center for all information that is pertinent to the Rail Traffic Controllers.

#### 4 Action Plan Description


Under this CAP, ROCC management will develop a graphical training aid that RTCs can use to consult for Standard Operating Procedures (SOP) during their shift if required.

##### 4.1 Approach

ROCC will work with ROQT to develop this product. This product will be created by ROCC management and will be positioned at each work console as required. Additionally, an electronic copy and quick reference guide will be developed for ease of access and self-study for the RTCs. Input will be solicited from RTCs and Assistant Superintendents to decide on the format and delivery. ROCC management will work with the Office of Vehicle Program Services to move these checklists and SOPs to an online format. Finally, ROCC will build and maintain a publications library in the back of the Control Center for all personnel to utilize. All checklists and procedures will include procedures and forms for shift briefings, bathroom breaks, and personal emergencies that require RTCs to leave their assigned desk and procedures for logging on and off of the AIM system.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	SOP training aid	A graphical training aid that will serve as a quick reference guide for RTCs	Robert Relyea, Lauren Semper-Scott	12/31/15
2)	Electronic SOPs	An electronic copy of all SOPs and checklists	Brian Clarke	07/31/15
3)	Publications library	A complete publications library that contains all relevant information for ROCC personnel	Gregory Wortman	07/31/16
4)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/16

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#### 4.2 Schedule





Tasks	Estimated Start	Estimated Finish
Develop graphical training aid hard copy	07/31/15	12/31/15
Develop publications library	11/01/15	07/31/16
Develop electronic graphical training aid	09/01/15	12/31/15

#### 4.3 Budget / Cost Estimate


This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
TIES	Brian Clarke		Electronic SOP and checklists	Robert Relyea	12/31/15
TIES	Brian Clarke		Electronic SOP and checklists	Lauren Semper-Scott	12/31/15
ROCC	Gregory Wortman		Publications library	Robert Relyea	07/31/16
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	12/31/16

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## 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

## 6 Performance Measures

Completion and acceptance of materials.

Quality reviews of RTC management of breaks, shift transfers, and AIM log ons and log offs.

## 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

Quality reports.

FTA observation of ROCC.

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FTA SMI (MAR 16 – APR 3 2015)

Finding **R-7**  
Required Action **R-1-7-b**

Corrective Action Plan (CAP)

## 8 CAP Approval

## APPROVED BY:

09/10/15

Action Coordinator

Date

Gregory Wortman

Assistant Director of Rail Operations Control Center (ROCC)

9/10/15

Department Head

Date

Hercules Ballard

Managing Director of Rail Transportation (RTRA)

9/10/2015

A. Robert Troup

Date

Deputy General Manager, Operations (DGMO)

Louis J. Brown

Date

Acting Chief Safety Officer (SAFE)


9/11/15

Jack Requa

Date

Interim General Manager/Chief Executive Officer (GM/CEO)

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015


**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-8-a**

**CAP Closed By FTA on-03-15-2017**

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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-8</b> <b>Required Action R-1-8-a</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-8** and its Required Action **R-1-8-a**.

### 2.1 FTA Finding

Personal cell phones are used by Rail Traffic Controllers (RTCs) in the Rail Operation Control Center (ROCC).

### 2.2 FTA Required Action

WMATA must establish a clear policy that prohibits distractions from the use of cell phones and other electronic devices in the ROCC.

## 3 Analysis and Recommendation


### 3.1 Analysis

Metro has a strict zero tolerance policy in regards to the use of cellphones. Controllers are not allowed to have cell phones during their shift. The only personnel authorized to have a cell phone on the ROCC floor are management personnel. These cell phones are issued by Metro and are used to facilitate incident reporting to executives. Internal audits show a strict adherence to this policy and disciplinary actions taken for infractions. Metro will update the policy to only allow cell phone use in the break room.

### 3.2 Recommendation

On July 6, 2015, Metro's ROCC issued a new policy memorandum outlining the policy on cell phones within the ROCC. The policy identifies the punishments for the types of infractions (having a personal cell phone in possession versus caught using a cell phone) and was briefed to all employees. After being briefed on the new policy, all ROCC personnel were required to

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sign a document stating that they had been informed of the new policy. Additionally, new signs were placed at all entrances into the ROCC informing personnel of the new policy.

#### 4 Action Plan Description

The plan described in paragraph 3.2 above has already been instituted.

##### 4.1 Approach

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	New policy letter	New policy letter stating the zero tolerance policy for cell phones in the ROCC	Robert Relyea	07/06/15
2)	New door signs	New signs for all entrances that warn against the use of personal cell phones	Robert Relyea	07/06/15
3)	Internal audit	An internal audit to ensure compliance with the new cell phone policy	Robert Relyea	Recurring
4)	Incident report	An incident report that is provided to TOC/SSOA and the FTA that describes violations throughout the end of 2016	Robert Relyea	12/31/16
3)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/16


##### 4.2 Schedule

N/A (Not Applicable).

##### 4.3 Budget / Cost Estimate




This action will be funded in the operating budget in FY2016.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Robert Relyea		New policy letter	Hercules Ballard	07/06/15
ROCC	Deltrin Harris		New door signs	Robert Relyea	07/06/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	12/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Active enforcement and monitoring as demonstrated by QAAW reports or results of efficiency checks.


#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

Quality reports.

FTA observation of ROCC.

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## 8 CAP Approval


### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)

09/10/15  
Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)


09/10/15  
Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

9/10/2015  
Date


  
 Louis J. Brown  
 Acting Chief Safety Officer (SAFE)

9/10/15  
Date

  
 Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)

9/11/15  
Date

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-9</b> Required Action <b>R-1-9-a</b>
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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-9-a**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-9</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-9-a</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-9** and its Required Action **R-1-9-a**.

### 2.1 FTA Finding

No formal transfer records are used when RTCs complete shift briefings.

### 2.2 FTA Required Action

Until such time as electronic transfer records are implemented, WMATA must ensure that its Rail Traffic Controllers (RTC) use paper- based logs with formal signatures.

## 3 Analysis and Recommendation

### 3.1 Analysis


As of right now, shift briefings are being acknowledged via signature in the log book that is maintained next to the console for the Assistant Superintendent. Rail Operation Control Center (ROCC) management personnel will ensure a transfer of formal log books occurs during shift change briefings.

### 3.2 Recommendation

Metro will look at ways to standardize the shift briefing across the entire ROCC. In addition to signing for the briefing, Metro will look at ways of implementing some type of SharePoint portal in which this information is easily accessible via electronic means.

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#### 4 Action Plan Description


Until a permanent solution is developed, RTCs and Assistant Superintendents will continue to acknowledge shift briefings with a signature. ROCC management will conduct periodic internal audits and will observe random shift briefings to ensure they are occurring as stated. ROCC management will work with the Information Technology (IT) Department on the development of a SharePoint portal to serve as a collaboration site in which all personnel can view and participate in the shift briefing.

##### 4.1 Approach

Since Metro's plan in place is currently working, this item will be addressed after collaboration has occurred with the IT department. It is important that this tool generates efficiency and situational awareness rather than become a cumbersome reporting mechanism. Metro will observe and identify strengths and areas of concern to address with the new reporting mechanism and will phase it in upon completion. Until that point in time, Metro will continue to conduct internal audits to ensure briefings are occurring. This recommendation is intended to address the proper transfer of safety-related information for the management of train traffic.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	New briefing template	A new template that will be utilized for reporting requirements and provided to FTA	Robert Relyea/ Kevin Borek	12/31/15
2)	Policy on shift change briefings	A new policy that will be distributed that outlines the guidance to use while conducting shift change briefings	Robert Relyea	12/31/15
3)	New shift schedule	A new shift schedule that allows for the overlapping of personnel in order to attend shift change briefings	Deltrin Harris	11/30/15
4)	QAAW review schedule	A reoccurring inspection of a random sampling to ensure compliance	Michael DiNatale	12/31/15
5)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	07/31/16

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#### 4.2 Schedule






Tasks	Estimated Start	Estimated Finish
Conduct internal audits of shift briefings	08/15/15	11/01/15
Develop new SharePoint portal for reporting	10/01/15	12/31/15
Publish QAAW review schedule	12/01/15	12/31/15
Develop new electronic shift briefing	12/01/15	12/31/15

#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Candice Thomas		Shift brief log	Robert Relyea	08/15/15
IT	Robert Relyea		SharePoint design	Kevin Borek	12/31/15
QAAW	Michael DiNatale		QAAW review schedule	Robert Relyea	12/31/15
ROCC	Deltrin Harris		New briefing template	Robert Relyea	12/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	07/31/16


#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Active enforcement and monitoring of shift briefing requirements and execution.

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## 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

Quality reports.

FTA observation of ROCC.

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Finding **R-9**  
Required Action **R-1-9-a**

Corrective Action Plan (CAP)

## 8 CAP Approval

## APPROVED BY:

Action Coordinator

Gregory Wortman

Assistant Director of Rail Operations Control Center (ROCC)

09/10/15

Date

9/10/15

Department Head

Hercules Ballard

Managing Director of Rail Transportation (RTRA)

Date

9/10/2015

A. Robert Troup

Deputy General Manager, Operations (DGMO)

Date

9/10/15

Louis J. Brown

Acting Chief Safety Officer (SAFE)

Date


9/11/15

Jack Requa

Interim General Manager/Chief Executive Officer (GM/CEO)

Date

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-10-a**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-10</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-10-a</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-10** and its Required Action **R-1-10-a**.

### 2.1 FTA Finding

WMATA does not use industry standard rules reviews and scenario testing activities.

### 2.2 FTA Required Action

WMATA must establish an on-going “efficiency” testing program for Rail Traffic Controllers (RTCs) to evaluate their in-service performance and competency.

## 3 Analysis and Recommendation


### 3.1 Analysis

Since Rail Operation Control Center (ROCC) personnel are involved in the American Public Transportation Association (APTA) rules committee, Metro uses and helps shape industry standards. With regards to the efficiency testing program, ROCC will incorporate it into the new training program and it will be implemented with the addition of new controllers. Outside of the annual training recertification program, RTCs are not tested on proficiency and core competencies.

### 3.2 Recommendation

ROCC is in the process of developing a new training curriculum for its personnel. This new training program will be for RTCs, Assistant Superintendents, Superintendents, and Senior Management personnel. “Efficiency testing” will be incorporated into the program along with performance standards for the quarterly training drills conducted with the Office of Emergency Management (OEM) personnel.

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#### 4 Action Plan Description

ROCC will work with the Rail Operations Quality Training (ROQT) Department in the development of new “efficiency testing” programs. The goal is to develop a series of no-notice table top exercises to gauge decision making skills, strategy development for incident management, and overall knowledge of controller functions that incorporate the Standard Operating Procedures (SOP) and cardinal rule functions. RTCs will be evaluated during these exercises and provided with feedback on strengths and areas of concern. Individual refresher training will then be addressed to meet deficiencies.


##### 4.1 Approach

This task will be incorporated in a unique way in order to alleviate the stress of a testing environment. The new “efficiency testing” program will be implemented as a team competition that will put controllers in teams to test their ability to operate through any incident in an efficient and effective manner. The winning team will be identified as the “controller team” of the quarter and receive an incentive (to be determined). The idea is to foster teamwork and promote the continual focus on skills improvement. Metro will also look at incorporating aspects of the AMTRAK Part 217 program as a model for the new efficiency program. The testing situations will include both active (scenario-based) and passive (observation-based) testing in the overall efficiency testing program.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Testing standards	A new description of tasks that RTCs are required to perform	Robert Relyea/ Lauren Semper-Scott	03/31/16
2)	Competition structure	Development of a team event that will identify strengths and areas of concerns for controller teams	Robert Relyea/ Lauren Semper-Scott	03/31/16
3)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	07/31/16

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#### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Conduct assessment of RTC skills	07/30/15	11/30/15
Develop an efficiency testing mechanism	09/01/15	03/31/16
Conduct first competition event	04/30/16	05/01/16

#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris	RA	List of RTC skills/functions	Robert Relyea	11/30/15
ROQT	Robert Relyea	LR	Plan for conducting skills competition	Lauren Semper-Scott	12/31/15
QAAW	Michael DiNatale	MD	CAP deliverables verified and reviewed	Gregory Wortman	07/31/16

#### 5 CAP Completion Documentation


After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Report on program requirements for efficiency testing, management roles and responsibilities, and observation goals.

Quality reports.

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## 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA

Quality reports.

FTA observation of ROCC.

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Finding **R-10**  
Required Action **R-1-10-a**

Corrective Action Plan (CAP)

## 8 CAP Approval

## APPROVED BY:

09/10/15

Action Coordinator

Date

Gregory Wortman

Assistant Director of Rail Operations Control Center (ROCC)

9/10/15

Department Head

Date

Hercules Ballard

Managing Director of Rail Transportation (RTRA)

9/10/2015

A. Robert Troup

Date

Deputy General Manager, Operations (DGMO)

9/10/15

Louis J. Brown

Date

Acting Chief Safety Officer (SAFE)


9/11/15

Jack Requa

Date

Interim General Manager/Chief Executive Officer (GM/CEO)

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-11-a**

**CAP Closed By FTA on-12-21-2016**


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	<b>FTA SMI (MAR 16 – APR 3 2015)</b>	<b>Finding R-11</b> <b>Required Action R-1-11-a</b>
	<b>Corrective Action Plan (CAP)</b>	

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-11** and its Required Action **R-1-11-a**.

### 2.1 FTA Finding

Metro faces major challenges in recruiting and training new Rail Traffic Controllers (RTCs).

### 2.2 FTA Required Action

WMATA must establish an independent committee to evaluate and monitor the recruitment of RTC trainees, the quality and performance of their training, and the certification of new candidates.

## 3 Analysis and Recommendation


### 3.1 Analysis

Metro is actively recruiting potential candidates from a limited candidate pool. A 2014 panel consisting of members from the Deputy General Manager of Operations (DGMO) Office and Human Resources (HR) found that a higher salary could potentially help increase the pool of qualified candidates. A new training program is currently being developed in order to offer potential controllers a higher level of training.

### 3.2 Recommendation

Metro is in the process of interviewing candidates for the 10 open RTC positions. Internal and external job postings resulted in over 200 applicants applying for the position. On July 20, 2015, interviews will be conducted from a panel of 4 Metro employees to gauge potential employment within the Rail Operation Control Center (ROCC).

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#### 4 Action Plan Description

Metro will continue the hiring process in order to fill all empty positions for RTCs. Metro will also continue to tailor its training program to adjust to current needs of the roadway. Controllers will be required to go through an initial certification program and an annual recertification program to remain current in their status as RTCs. An independent internal committee will be established to monitor the training of certification of new RTCs.


##### 4.1 Approach

Metro will conduct interviews from July 20, 2015 until it has exhausted all potential candidates for the position. Metro has enlisted a strong panel to conduct the interviews that will also incorporate members of the Field Division and the ROCC to ensure compatibility within the departments. Once hired, Metro will ensure that the new controllers are trained to standard and receive lessons based on best operating practices and current FTA findings. Once established, members of the new internal committee will be invited to observe the new training program and receive a brief on the process for training controllers.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	HR Report	A detailed report from HR regarding the quality of applicants that applied and the quality of applicants that were selected	Tawnya Moore McGee	03/31/16
2)	Formation of committee	Formation of a new committee that is intended to observe the training program and provide feedback on the status of the ROCC	Robert Relyea	12/31/15
3)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	07/31/16

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#### 4.2 Schedule




Tasks	Estimated Start	Estimated Finish
Conduct interviews	07/20/15	08/15/15
Provide list of successful candidates	08/15/15	08/31/15
Formation of new committee	10/30/15	12/31/15
Provide detailed HR report	09/01/15	03/31/16

#### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
Robert Relyea	Deltrin Harris		List of successful candidates	Tawnya Moore-McGee	08/15/15
HR	Tawnya Moore-McGee		Detailed HR report	Robert Relyea	03/31/16
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	07/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures


Committee meeting minutes, schedule, and charter and/or SOPs.

#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

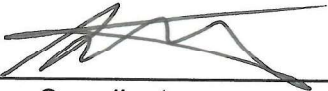
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	Corrective Action Plan (CAP)	

## 8 CAP Approval


**APPROVED BY:**


09/10/15


Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)
 Date


9/10/15


Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)
 Date


9/10/2015

A. Robert Troup  
 Deputy General Manager, Operations (DGMO)
 Date



9/10/15

Louis J. Brown  
 Acting Chief Safety Officer (SAFE)
 Date


9/11/15

Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)
 Date

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-12-a**

**CAP Closed By FTA on-02-10-2017**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-12</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-12-a</b>

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-12** and its Required Action **R-1-12-a**.

### 2.1 FTA Finding

Metro's training program for new Rail Traffic Controllers (RTCs) is inadequate.

### 2.2 FTA Required Action

Metro must overhaul, correct, revise and improve its training program for RTCs.

## 3 Analysis and Recommendation


### 3.1 Analysis

The training program for RTCs is severely lacking and not standardized across the board. In addition, there is no training program for Assistant Superintendents or Superintendents within the Rail Operation Control Center (ROCC). Limited performance and accountability metrics are available and integrated within the program.

### 3.2 Recommendation

ROCC is currently developing a new training program to address this issue. The program in development has a duration of 6 months, and is a combination of classroom instruction, computer based training, and "on-the-job training." There will be multiple phases of the training program that involve monthly training exercises to evaluate performance and continued potential within the position.

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-12</b>
	Corrective Action Plan (CAP)	Required Action <b>R-1-12-a</b>

#### 4 Action Plan Description


ROCC management is working with the Rail Operation Quality Training (ROQT) Department to develop a standardized training curriculum that is relevant to the current operation of the railroad. In addition to standardized RTC training, ROCC is researching courses on management that will be utilized to provide the Assistant Superintendents and the Superintendents the management experience and training that is required to effectively manage the Control Center.

##### 4.1 Approach

ROCC will solicit input from all current RTCs on their level of satisfaction with the training program they went through in order to identify areas of improvement. ROCC management will combine this information with the current needs of the railroad and will work with ROQT to develop a training program that is based off of the Adult Learning Model. In addition to classroom training, the new program will feature extensive field training and a mentorship program.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Training program assessment	Assessment from RTC's regarding the current training program and examination of the industry best practices	Deltrin Harris	10/31/15
2)	New training program outline	A completely remodeled training program that fits the needs of the current operating environment and will include a course outline, format, modules, and implementation schedule	Robert Relyea/Lauren Semper-Scott	07/31/16
3)	Mentorship program needs statement	A statement that defines the roles/responsibilities and purpose for the mentorship program	Robert Relyea/Dr. Scott	12/31/15
4)	Compliance reviews	Compliance reviews that track progress of the updated program	Robert Relyea/Dr. Scott	Recurring

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Deliverable		Description	Responsible Party	Estimated Completion Date
5)	Gantt Chart	A schedule that clearly defines deliverables and critical paths for the development of the training program	Robert Relyea/Dr. Scott	12/31/15
6)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	07/31/16


#### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Conduct RTC assessment of training	07/20/15	10/31/15
Review current training program	08/31/15	09/30/15
Develop new training curriculum	09/30/15	07/31/16

#### 4.3 Budget / Cost Estimate




This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris		Survey results from recent RTC graduates	Robert Relyea	10/31/15
ROQT	Robert Relyea		Training program insight	Lauren Semper-Scott	09/30/15
ROCC	Lauren Semper-Scott		New training program	Robert Relyea	07/31/16
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	07/31/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Evidence that training materials address the training program assessment and adult learning Course attrition rate.

Incorporation of performance standards as determine din R-1-12-B into training materials.

RTC performance evaluations.

#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

FTA observation of training and performance of new RTCs.

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FTA SMI (MAR 16 – APR 3 2015)


Finding **R-12**  
Required Action **R-1-12-a**


Corrective Action Plan (CAP)

## 8 CAP Approval

## APPROVED BY:

  
\_\_\_\_\_  
Action Coordinator  
Gregory Wortman  
Assistant Director of Rail Operations Control Center (ROCC)  
09/10/15  
Date

 For Hercules Ballard  
\_\_\_\_\_  
Department Head  
Hercules Ballard  
Managing Director of Rail Transportation (RTRA)  
9/10/15  
Date


  
\_\_\_\_\_  
A. Robert Troup  
Deputy General Manager, Operations (DGMO)  
9/10/2015  
Date

  
\_\_\_\_\_  
Louis J. Brown  
Acting Chief Safety Officer (SAFE)  
9/10/15  
Date

  
\_\_\_\_\_  
Jack Requa  
Interim General Manager/Chief Executive Officer (GM/CEO)  
9/11/15  
Date

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-12-b**


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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-12</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-12** and its Required Action **R-1-12-b**.

### 2.1 FTA Finding

WMATA's training program for new Rail Traffic Controllers (RTCs) is inadequate.

### 2.2 FTA Required Action

Metro must establish performance standards to be qualified for all positions in the Rail Operations Control Center (ROCC).

## 3 Analysis and Recommendation


### 3.1 Analysis

Metro currently has performance standards within the ROCC that must be achieved in order to move from a RTC trainee to a full-time RTC. These standards are tested through hands-on practical applications and written testing. Additionally, RTCs complete an in-depth on-the-job training process during a probationary period before being allowed to work as part of a control team. The annual certification process currently only provides written testing.

### 3.2 Recommendation

ROCC will modify its annual recertification program to include the participation in monthly training exercises that will assist in the evaluation of RTC performance and gauge continued potential within the position.

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#### 4 Action Plan Description

ROCC management will ensure that the monthly training plan that is developed has the capabilities to test all ROCC personnel. The evaluation of performance standards will be listed as a checklist and will be submitted into each employee's performance file. The standards will serve as a basis for annual evaluations and as a metric to gauge areas of retraining that will be required.

##### 4.1 Approach

The new evaluation criteria will be developed utilizing the current training curriculum. ROCC management will work with the Rail Operation Quality Training (ROQT) Department to develop in-depth and comprehensive evaluation criteria that supervisors can use to document observed performance. The concept will be based on a continuous evaluation cycle that strives to achieve an exceptional level of proficiency in all tasks. Individual improvement plans will be built based off of individual RTCs strengths and weaknesses. Sustainment training will be provided both online and in the classroom and evaluations will continually refine and assess skillsets. A psychological profile report will be given to new applicants for the position of RTC in order to ensure they are capable of working in this environment. This report will be similar to the one the FAA utilizes with their aircraft controllers. This training will help augment the recertification program for the RTCs.

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Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Psychological profile report	A psychological profile report that will determine the best applicants for success and is built around the FAA model	Lauren Semper-Scott	12/31/15
2)	Psychological test	A copy of the psychological test that will be utilized during future recruiting drives	Lauren Semper-Scott	12/31/15
3)	Performance standard	A comprehensive list of performance standards that are used to evaluate and promote an RTC from a trainee to a fully qualified RTC	Robert Relyea	12/31/15
4)	Training and evaluation outlines	This will be a comprehensive and detailed list for all tasks associated with RTCs and will include all performance metrics	Gregory Wortman	12/31/15
4)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	02/07/16


#### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Develop psychological test	09/01/15	12/31/15
Develop psychological report	09/01/15	12/31/15
Develop new evaluation checklist	10/30/15	12/31/15
Incorporate standards into annual evaluations	01/01/16	01/31/16

#### 4.3 Budget / Cost Estimate






This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROQT	Lauren Semper-Scott		Psychological test	Robert Relyea	12/31/15
ROQT	Lauren Semper-Scott		Psychological report	Robert Relyea	12/31/15
ROCC	Gregory Wortman		Training and evaluation outlines	Lauren Semper-Scott	12/31/15
ROCC	Robert Relyea		Evaluation criteria list	Lauren Semper-Scott	12/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	02/07/16

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures


Performance standard is complete and available, and addresses RTC roles and responsibilities.

#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.


FTA review of performance standard document.

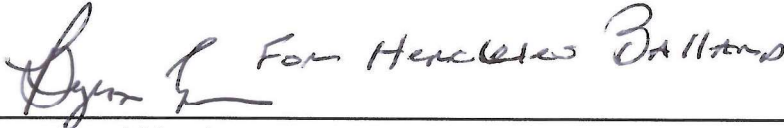
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## 8 CAP Approval

### APPROVED BY:


09/10/15  
 \_\_\_\_\_  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)



9/10/15  
 \_\_\_\_\_  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)


9/10/2015  
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 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)


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 Louis J. Brown  
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9/11/15  
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 Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-13</b>
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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015


**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-13-a**

**CAP Closed By FTA on-08-04-2017**

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-13</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-13** and its Required Action **R-1-13-a**.

### 2.1 FTA Finding

WMATA's accident investigation process does not look at the Rail Operation Control Center (ROCC) or individual Rail Traffic Controllers (RTCs).

### 2.2 FTA Required Action

WMATA must expand the focus of its accident investigation process to include an active review of the actions of the ROCC, and to ensure that RTCs whose performance could have contributed to the accident are taken for mandatory post-accident drug and alcohol testing as per 49 CFR Part 655.44.

## 3 Analysis and Recommendation


### 3.1 Analysis

Current policies are in place that require post-incident testing for drugs and alcohol. Additionally, all actions of the controller involved during an incident are extensively reviewed (to include audio tapes of all conversations).

### 3.2 Recommendation

ROCC currently investigates all incidents regarding questions on RTC or ROCC performance. ROCC will continue to actively perform these functions and will maintain the results of all investigations (formal, informal, internal, and external).

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#### 4 Action Plan Description

ROCC management will continue to follow the mandatory post-accident drug and alcohol testing as per 49 CFR Part 655.44. All copies of investigations will be maintained by appropriate personnel and any adverse actions required will be documented in employee personnel files.

##### 4.1 Approach

ROCC management will continue to take the proactive approach of investigations into all potential and actual incidents.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	MSRPH documentation	Documentation detailing the process for accident investigation	Deltrin Harris	10/31/15
2)	QAAW report	Report on RTC and ROCC review during accident investigations	Michael DiNatale	11/30/15
3)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	12/31/15


##### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Provide MSRPH documentation	10/01/15	10/31/15

##### 4.3 Budget / Cost Estimate



This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to support this action.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Deltrin Harris		MSRPH documentation	Robert Relyea	10/31/15
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	12/31/15

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures


Review accident investigation reports to ensure review of ROCC role and compliance with internal procedures.

#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.


FTA review of accident investigation procedures.

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-13</b> Required Action <b>R-1-13-a</b>
	Corrective Action Plan (CAP)	

## 8 CAP Approval


**APPROVED BY:**


09/10/15


Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)
 Date


9/10/15


Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)
 Date


9/10/2015

A. Robert Troup  
 Deputy General Manager, Operations (DGMO)
 Date



9/10/15

Louis J. Brown  
 Acting Chief Safety Officer (SAFE)
 Date


9/11/15

Jack Requa  
 Interim General Manager/Chief Executive Officer (GM/CEO)
 Date

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Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-14-a**


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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-14</b> <b>Required Action R-1-14-a</b>
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## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-14** and its Required Action **R-1-14-a**.

### 2.1 FTA Finding

While it has improved, the quality of Metro's radio system is still poor in some locations.

### 2.2 FTA Required Action

Metro must expedite activities underway to modify the radio system design to add coverage to the areas that currently are not part of the system design, including tunnel ventilation and fan shafts, safe and refuge areas, and tunnel portals.

## 3 Analysis and Recommendation

### 3.1 Analysis


The Deputy General Manager of Operations' (DGMO) office has made the radio project a top priority. Staff are working solutions to this issue. It is ill-advised to make modifications to the vent shafts as it will take away resources from the T-band relocation project and the maintenance of the existing system.

### 3.2 Recommendation

This item remains a top priority for the DGMO office. The radio outage tool was a resource that was developed earlier this year to address system wide outages and trouble areas and was made available to both Rail Operation Control Center (ROCC) and the public. While this is not a permanent solution, it is a temporary fix that is intended to provide situational awareness until new radio equipment can be procured.

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	FTA SMI (MAR 16 – APR 3 2015)	<b>Finding R-14</b> <b>Required Action R-1-14-a</b>
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#### 4 Action Plan Description

Radio coverage throughout the system will continue to be monitored. The Maintenance Operation Center (MOC) is currently working to identify more efficient ways to survey radio outages and trouble spots during non-revenue hours. As vendor solutions and money becomes available, radio systems coverage will be addressed.

##### 4.1 Approach


ROCC will continue to update and refine the radio outage report that provides situational awareness to the system. ROCC will also develop procedures to implement during times when communications are lost. ROCC will recommend a communication system based off of the PACE theory (Primary, Alternate, Contingency, and Emergency) of communications contingency planning.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Radio outage map	Updated radio outage display	Tiffani Jenkins	12/31/16
2)	PACE Plan	A contingency planning tool to address communications procedures during an outage	Robert Relyea	12/31/16
3)	Radio coverage report with schedule for improvements	A complete listing of scheduled improvements for radio communications within the system	Marshall Epler	12/31/16
4)	MOCC radio response	Updated procedures for MOCC response to reported radio outages	Tiffani Jenkins	12/31/16
5)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	01/31/17

##### 4.2 Schedule

Tasks	Estimated Start	Estimated Finish
Update radio outage map	7/20/15	12/31/16
Develop PACE plan	7/20/15	12/31/16

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#### 4.3 Budget I Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to complete this action.

#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan:

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Tiffani Jenkins	TJ	Updated radio outage map	Robert Relyea	12/31/16
COMM	Marshall Epler		Radio coverage report	Robert Troup	12/31/16
ROCC	Gregory Wortman		PACE plan	Robert Relyea	12/31/16
QAAW	Michael DiNatale		CAP deliverables verified and reviewed	Gregory Wortman	01/31/17

#### 5 CAP Completion Documentation

After Metro's collective review, a memorandum with enclosed CAP deliverables (refer to 4.1) will be provided to FTA to support the closure of this required action.

#### 6 Performance Measures

Average days required to repair outages.

Average number of reported outages per week.

#### 7 Verification

Monthly/Quarterly updates provided to TOC/SSOA and FTA.

FTA radio coverage testing.

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FTA SMI (MAR 16 – APR 3 2015)

Corrective Action Plan (CAP)

Finding **R-14**Required Action **R-1-14-a**

## 8 CAP Approval

## APPROVED BY:

09/10/15

Action Coordinator

Date

Gregory Wortman

Assistant Director of Rail Operations Control Center (ROCC)

9/10/15

Department Head

Date

Hercules Ballard

Managing Director of Rail Transportation (RTRA)

9/10/2015

A. Robert Troup

Date

Deputy General Manager, Operations (DGMO)

9/10/15

Louis J. Brown

Date

Acting Chief Safety Officer (SAFE)


9/11/15

Jack Requa

Date

Interim General Manager/Chief Executive Officer (GM/CEO)

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	FTA SMI (MAR 16 – APR 3 2015)	Finding <b>R-14</b> Required Action <b>R-1-14-b</b>
	Corrective Action Plan (CAP)	


Federal Transit Administration (FTA)  
Safety Management Inspection (SMI)  
MAR 16 – APR 3 2015

**Washington Metropolitan Area Transit Authority (WMATA)**  
**Corrective Action Plan (CAP)**

**R-1-14-b**

**CAP Closed By FTA on-06-21-2017**


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	<b>FTA SMI (MAR 16 – APR 3 2015)</b>	<b>Finding R-14</b> <b>Required Action R-1-14-b</b>
	<b>Corrective Action Plan (CAP)</b>	

## 1 Background

The Federal Transit Administration (FTA) completed a Safety Management Inspection (SMI) of the Washington Metropolitan Area Transit Authority (WMATA) rail and bus systems. FTA issued Safety Directive 15-1 identifying 54 safety findings and 91 required actions to improve safety.

## 2 Purpose

This Corrective Action Plan has been developed to address Safety Finding No. **R-14** and its Required Action **R-1-14-b**.

### 2.1 FTA Finding

While it has improved, the quality of WMATA's radio system is still poor in some locations.

### 2.2 FTA Required Action

WMATA must assess and prioritize for additional radio enhancements not covered by Capital Improvement Plan (CIP) 136.

## 3 Analysis and Recommendation


### 3.1 Analysis

The DGMO office has made the radio project a top priority. Staff are working solutions to this issue. As additional funding becomes available, radio enhancements will be considered to address the changing needs of the system.

### 3.2 Recommendation

As of right now, replacement of Police Radios and upgraded frequencies to FCC UHF channels for narrow band coverage are covered in the existing plan. There is also the addition of the Radio Project with Supplemental Coverage, part of CIP 195, that incorporates the inclusion of Comprehensive Radio Communications Systems (CRCS) with 11 million dollars allocated throughout FY 2018 to the project.

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#### 4 Action Plan Description

Radio coverage throughout the system will continue to be monitored. Metro will continue to search for viable vendors for radio solutions.

##### 4.1 Approach

Metro will continue to work with the project manager for the radio upgrades project and try to identify a solution that is scalable with the ever changing railroad and technology.

Deliverable		Description	Responsible Party	Estimated Completion Date
1)	Radio outage map	Updated radio outage display	Tiffani Jenkins	12/31/16
2)	Radio coverage report with schedule for improvements	A complete listing of scheduled improvements for radio communications within the system	Marshall Epler	12/31/16
3)	Vendor solution	Approved list for vendor solution to fix the radio system within the ROCC and metro system	Marshall Epler	12/31/16
4)	Strategic plan	Long term strategic plan for the enhancement and maintenance of the radio communications capabilities within the system	Marshall Epler	12/31/16
5)	Quality Audit Report	The Office of Quality Assurance & Warranty (QAAW) performs scope verification and inspection of CAP deliverables to ensure that all are completed as planned and expected.	Michael DiNatale	01/31/17

##### 4.2 Schedule


Tasks	Estimated Start	Estimated Finish
Update radio outage map	7/20/15	12/31/16

##### 4.3 Budget / Cost Estimate

This action will be funded in the operating budget in FY2016. Additional operating funds will be required in future fiscal years to complete this action.

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#### 4.4 Internal Stakeholders

The following internal stakeholders are committed to work on the action plan.

Participant	Needed From	Required Initials	Item Needed	Give To/ Coordinate With	Estimated Completion Date
ROCC	Tiffani Jenkins	TJ	Updated radio outage map	Robert Relyea	12/31/16
COMM	Marshall Epler	ME	Radio coverage report	Robert Troup	12/31/16
QAAW	Michael DiNatale	MD	CAP deliverables verified and reviewed	Gregory Wortman	01/31/17

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	Corrective Action Plan (CAP)	

## 8 CAP Approval

### APPROVED BY:

  
 Action Coordinator  
 Gregory Wortman  
 Assistant Director of Rail Operations Control Center (ROCC)

09/10/15

Date

  
 Department Head  
 Hercules Ballard  
 Managing Director of Rail Transportation (RTRA)

For Hercules Ballard

9/10/15

Date

  
 A. Robert Troup  
 Deputy General Manager, Operations (DGMO)

9/10/2015

Date

  
 Louis J. Brown  
 Acting Chief Safety Officer (SAFE)

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Date

  
 Jack Requa  
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