FTA
FEDERAL TRANSIT ADMINISTRATION

PTASP
TECHNICAL ASSISTANCE CENTER

Addressing Operator Assault Through Your Agency's Safety Management System

February 24, 2021

FTA
FEDERAL TRANSIT ADMINISTRATION

Webinar Objectives

- Discuss operator assault in the transit environment
- Present considerations for managing the risk of operator assault through an SMS

Agenda

- Operator Assault in the Transit Environment
- Addressing Operator Assault in an SMS
- Center for Urban Transportation Research (CUTR) presentation
- Q&A

OPERATOR ASSAULT IN THE TRANSIT ENVIRONMENT

What do we mean by operator assault?

- For reporting purposes, the National Transit Database (NTD) defines assault as, "an unlawful attack by one person upon another"
- Assault in the broader context of transit service and this webinar refers to physical contact, or attempts to make physical contact, and verbal threats

ASSAULT

1. A violent physical or verbal attack
2. A threat or attempt to inflict offensive physical contact or bodily harm on a person that puts the person in immediate danger of or in apprehension of such harm or contact

– *Merriam-Webster*

Examples of Types of Operator Assault

Verbal assaults tend to occur more frequently (greater likelihood), but do not result in physical harm (less severe)

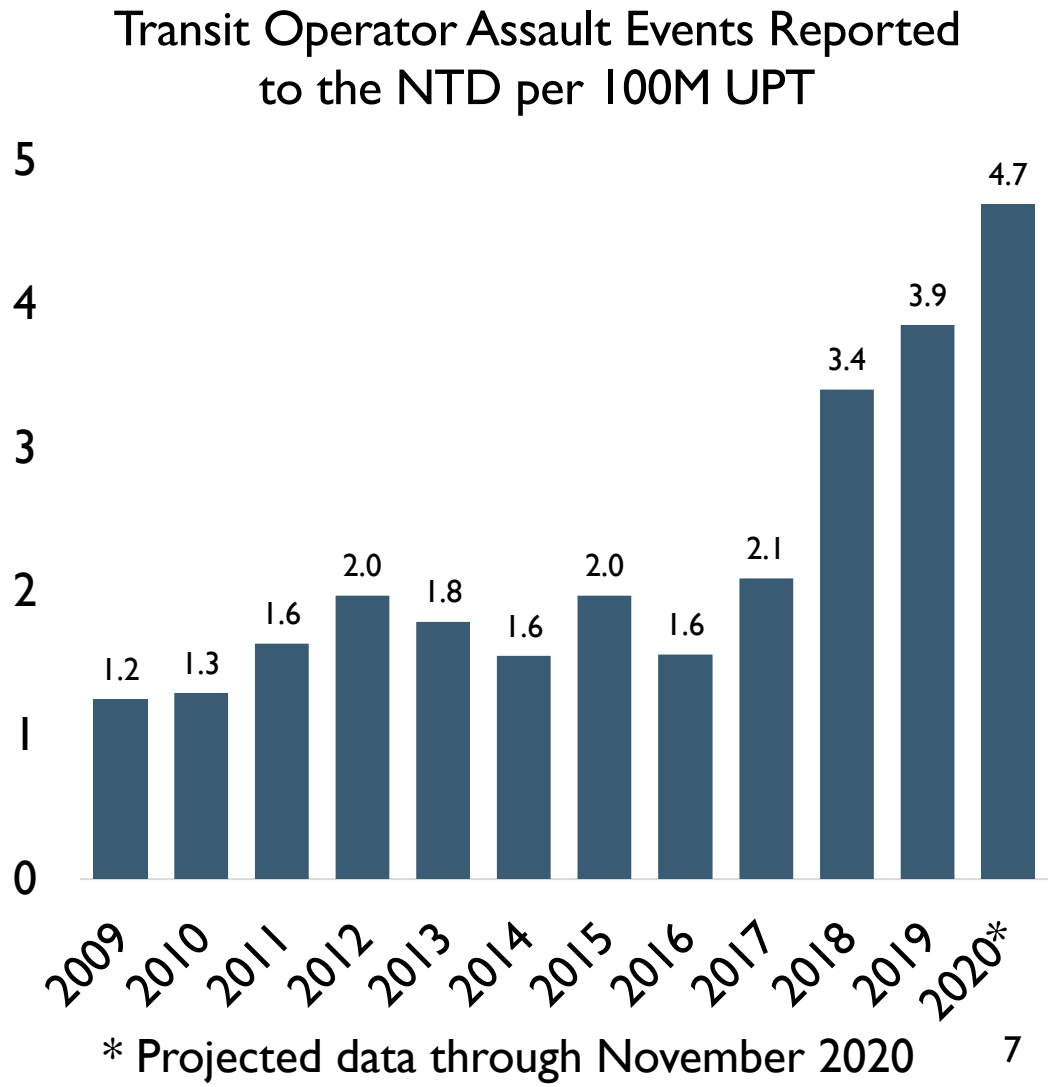
- Examples include:
  - Threats
  - Harassment
  - Intimidation

Physical assaults tend to occur less frequently (less likely), but typically pose greater danger (more severe)

- Examples include:
  - Spitting or deliberately coughing on the operator
  - Striking or attempting to strike the operator with hands, feet, or other body parts, or with an object
  - Using or raising weapons against the operator

Operator Assaults in the Transit Environment

- Average of 174 operator assault major incidents per year
- There are likely many more instances that do not meet a reporting threshold
- ~ 4x increase from 2009



FTA Initiatives on Operator Assault

- Federal Register Notice alerting transit agencies to address transit operator assault through the SMS processes required under the PTASP regulation
- National Online Dialogue on Transit Worker Assault
- Transit Advisory Committee for Safety (TrACS) 14-01 Report on Preventing and Mitigating Transit Worker Assaults in the Bus and Rail Transit Industry
- FTA/National Transit Institute Assault Awareness and Prevention for Transit Operators Course online training available including new Sunday course offerings

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

Protecting Public Transportation Operators From the Risk of Assault

AGENCY: Federal Transit Administration (FTA), DOT.

ACTION: Notice.

SUMMARY: This notice alerts transit agencies to the need to address the risk of transit operator assault when identified through the processes required under the Public Transportation Agency Safety Plan (PTASP) regulation. The PTASP regulation requires transit agencies to develop and implement Safety Management Systems (SMS) and associated processes for all elements of a public transportation system. In cases where transit agencies discover a risk of operator assault, the PTASP regulation requires agencies as part of their SMS processes to develop methods or

ADDRESSING OPERATOR ASSAULT IN AN SMS

Addressing Operator Assault in an SMS

- Operator assault is both a security concern and a safety concern
- Security concerns generally involve a threat actor—someone who intends to do harm
- Safety concerns introduce safety risk into a transit system, whether or not a threat actor is involved
- Operator assault can be analyzed as a safety concern through an SMS
- Transit agencies may choose to consider security information about the threat, if available, to better assess and mitigate the risk associated with operator assault

Addressing Operator Assault in an SMS

Safety Management Policy, Safety Risk Management (SRM), Safety Assurance, and Safety Promotion each have a vital role to play in addressing operator assault

Safety Management Policy	SRM	Safety Assurance	Safety Promotion
Written statement, with safety objectives, that communicates organizational accountabilities and responsibilities	Process for identifying hazards and analyzing, assessing, and mitigating safety risk	Processes for the collection, analysis, and assessment of information	Combination of training and communication of safety information to support SMS

Safety Management Policy

Safety Management Policy

- The Safety Management Policy sets out the structures necessary to conduct each of the SMS elements (SRM, Safety Assurance, and Safety Promotion)
  - This includes the necessary authorities, accountabilities, and responsibilities for managing safety
- The Safety Management Policy also sets out an important source of agency information about operator assault – the Employee Safety Reporting Program

SRM

Hazard Identification

- Our SRM process begins by identifying safety hazards and their potential consequences
- A hazard is, "a real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment" (§ 673.5)
  - An assault is an action taken by an individual that threatens the safety of the operator, and sometimes, the safety of other passengers, motorists, or pedestrians

SRM

Hazard Identification

- Our first step in hazard identification is determining what real or potential conditions could increase the risk that an operator is assaulted
- Examples:
  - Lack of physical separation from passengers
  - Passengers seated or standing near the operator
  - Fare/rules enforcement performed by operators

SRM

Hazard Identification

- Your agency may identify many hazards related to operator assault
- Does your agency decide to assess each of these hazards? If not, how does your agency pick one?
  - Your agency could list all related hazards and take each through the full SRM process – explore the greater context of the safety risk associated with operator assault at the agency
  - Your agency could pick one or a selection of the total related hazards to take through the full process – focus on those hazards with the greatest safety risk or those associated with safety risk that your agency can best mitigate

SRM

Hazard Identification

You may choose to consider factors that influence the motive, means, and/or opportunity to carry out an assault

- Motive
  - Fare disputes
  - Detours or delays
- Means
  - Equipment in the vehicle that could be used as a weapon
- Opportunity
  - Open operator compartment
  - Public access to operator break areas

SRM

Hazard Identification

- Your agency may identify multiple potential consequences of an operator assault-related hazard, such as:
  - Operator and/or passenger injury
  - Damage to the transit vehicle
- There are also less obvious potential consequences, such as:
  - Transit employees and/or passengers feeling unsafe
  - Operator fatigue or dissatisfaction due to repeated verbal assaults
- Your agency could choose to assess all related potential consequences, the worst credible consequence, the worst possible consequence, etc.

SRM

Hazard Identification: Example

Straightline Transit

Operator Assault Working Group

- Straightline Transit's working group identified three hazards related to operator assault
  1. Open access to the operator
  2. Fare collection and rules enforcement
  3. Direct interaction with the public

- ST will start with analyzing the first hazard and will consider assessing further hazards based on whether an acceptable level of risk is achieved

SRM

Hazard Identification: Example

Straightline Transit

Operator Assault Working Group

Hazard → Open access to the operator

- Straightline identified three potential consequences related to its hazard
  1. Injuries to the operator sustained during an assault
  2. Physical damage to the transit vehicle sustained during an assault on an operator
  3. Damage to the agency's reputation due to an assault on an operator
- Straightline decided to assess the first potential consequence
  - Worst credible consequence

SRM

Safety Risk Assessment

- Once you identify a hazard and potential consequence, you are ready to conduct a safety risk assessment
  - When conducting a safety risk assessment of your identified hazards and consequences, consider using FTA's sample safety risk register and sample safety risk assessment matrices
- If your agency decides to assess multiple potential consequences, remember that you will conduct a separate safety risk assessment for each potential consequence

SRM

Safety Risk Assessment: Example

Straightline Transit

Operator Assault Working Group

Hazard → Open access to the operator

Potential Consequence → Injuries to the operator sustained during an assault

- From 2001-2020, Straightline Transit experienced an **average of 10 operator assaults per year** and **2 assaults per year resulting in an injury**
- Bus supervisors confirm that operator assaults are not uncommon, but that assaults that result in injury are relatively uncommon
  - Bus supervisors also note that **operators often do not report verbal assaults** and **there are many more verbal assaults per year than are reflected in the agency's data**

SRM

Safety Risk Assessment
Don't Forget!

- You may find that you need more information to support your assessment
  - Operator, supervisor, or transit customer surveys
  - Customer complaints or customer service requests
  - Local law enforcement data
  - Data from a city-managed transit hub
  - Social media posts
  - Data from peer transit agencies

SRM

Safety Risk Assessment: Example

Straightline Transit

Operator Assault Working Group

Hazard → Open access to the operator

Potential Consequence → Injuries to the operator sustained during an assault

- A recent survey of transit operators indicates that verbal assaults are becoming more frequent
- Ride-alongs by bus supervisors corroborate an increase in these potential pre-cursor events
- **Likelihood:** Frequent
- **Severity**: Serious

Risk Assessment			
Likelihood/Severity	**Catastrophic (1)**	**Serious (2)**	**Marginal (3)**
Frequent (A)	HIGH (1A)	HIGH (2A)	MEDIUM (3A)
Occasional (B)	HIGH (1B)	MEDIUM (2B)	LOW (3B)
Remote (C)	HIGH (1C)	MEDIUM (2C)	LOW (3C)

SRM

Safety Risk Mitigation

- Safety risk assessments include a prioritization of hazards (§ 673.25(c)(1))
  - Your safety risk assessment may indicate that your agency does not need to address the hazard based on safety risk
  - Your safety risk assessment may indicate that your agency needs to identify mitigations or strategies to reduce the likelihood and severity of the consequences (§ 673.25(d))
- CUTR will discuss possible safety risk mitigations in greater detail

SRM

Safety Risk Mitigation: Example

Straightline Transit

Operator Assault Working Group

Hazard → Open access to the operator

Potential Consequence → Injuries to the operator sustained during an assault

- Straightline identified three potential safety risk mitigations
  1. Install plexiglass shields around the operator compartments
  2. Hire private security to conduct ride-alongs
  3. Install security cameras to deter assaults
- Straightline decided that the first safety risk mitigation was less expensive than the second with similar reductions in safety risk
- Straightline decided that the third safety risk mitigation would not sufficiently reduce the level of safety risk

SRM

Consider This

- In our example, Straightline Transit used a broad, system-wide approach to assessing its potential consequence
  - They assessed the system-wide risk and decided on a system-wide mitigation
- Straightline Transit (and your agency) could also choose to focus on the highest-risk operator assault circumstances, leading to more targeted mitigations
  - For example, routes with higher ridership, time of day, type of vehicle
  - An agency focusing on routes with the highest ridership may decide on a different mitigation strategy, such as increased security presence on high ridership routes, implementing shields only on vehicles that service the highest ridership routes, etc.

SRM

Consider This

- There is no single best approach
  - There are benefits to:
    - Conducting a wide, broad assessment (better understanding of the context of operator assault at the agency), and
    - Conducting a narrow, targeted assessment (addressing the highest area of risk within the context of the agency's risk prioritization)

Safety Assurance

Safety Performance Monitoring and Measurement

- Each of the elements of safety performance monitoring and measurement can help transit agencies manage the risk of operator assault, particularly the requirement for monitoring safety risk mitigations
  - Monitor operations to identify safety risk mitigations that may be ineffective, inappropriate, or not implemented as intended (§ 673.27(b)(2))
    - This includes any mitigations the agency established as part of the SRM

Safety Assurance

Safety Performance Monitoring and Measurement: Example

Straightline Transit

Operator Assault Working Group

Hazard → Open access to the operator

Potential Consequence → Injuries to the operator sustained during an assault

Safety Risk Mitigation → Install plexiglass shields around the operator compartments of the vehicles

- Safety risk mitigation monitoring activities:
  - Efficacy and appropriateness: Interview operators on their experiences with the new shields, conduct ride-alongs to observe operator/passenger interactions, review safety data
  - Implementation: Inspect operator compartments to ensure shields have been installed, conduct spot checks of operator compliance

Safety Assurance

Safety Performance Monitoring and Measurement

Requirement	Examples
Monitor the system for compliance with, and sufficiency of, operations and maintenance procedures (§673.27(b)(1))	• Ride-alongs to assess operator compliance with agency procedures for managing fare disputes • Data analysis of the outcomes of fare disputes
Monitor information reported through internal safety reporting programs (§673.27(b)(4))	• Employee Safety Reporting Program reports relating to operator assault • Customer complaints relating to operator assault
Conduct investigations of safety events to identify causal factors (§673.27(b)(3))	• Investigate and identify causal factors for operator assaults that result in reportable events

Safety Promotion

Safety Training and Communication

Requirement	Examples
Comprehensive safety training program for all workers directly responsible for safety (§673.29(a))	• Training on conflict resolution and de-escalation • The National Transit Institute offers an Assault Awareness and Prevention for Transit Operators course
Safety communication process, which must include information on hazards and safety risk relevant to workers' responsibilities (§673.29(b))	• Safety talks, bulletins, or other methods of communication on the safety risk associated with operator assault at the transit agency and how the agency is addressing that safety risk • Responses to reports submitted to the Employee Safety Reporting Program relating to operator assault

Safety Promotion

Safety Training and Communication: Example

Straightline Transit

Operator Assault Working Group

Hazard → Open access to the operator

Potential Consequence → Injuries to the operator sustained during an assault

- Conduct a safety stand-down to inform operators, supervisors, and superintendents of the hazards and safety risk related to operator assault and the steps the agency is taking to address the safety risk, including installing plexiglass barriers

CUTR PRESENTATION

Lisa Staes
CUTR Associate Director
CUTR Program Director,
Transit Safety and Workforce Development
Tampa, FL

- Director, Transit Safety and Workforce Development, CUTR
- Chair, Task Force on Transit Safety and Security, Transportation Research Board
- Editorial Board Member, Elsevier Transportation Research Interdisciplinary Perspectives Journal
- Project manager, FTA Transit Standards and Development Research and Safety Research Demonstration Evaluation Projects, CUTR
- Member, APTA
  - Safety Coordinating Council
  - Rail Safety Committee
  - Research and Technology Committee
  - Bus Safety Awards Selection Committee
  - Workforce Development Committee
- Ex-Officio Board Member, Florida Public Transportation Committee

Addressing Transit Assaults through your Agency's Safety Management System

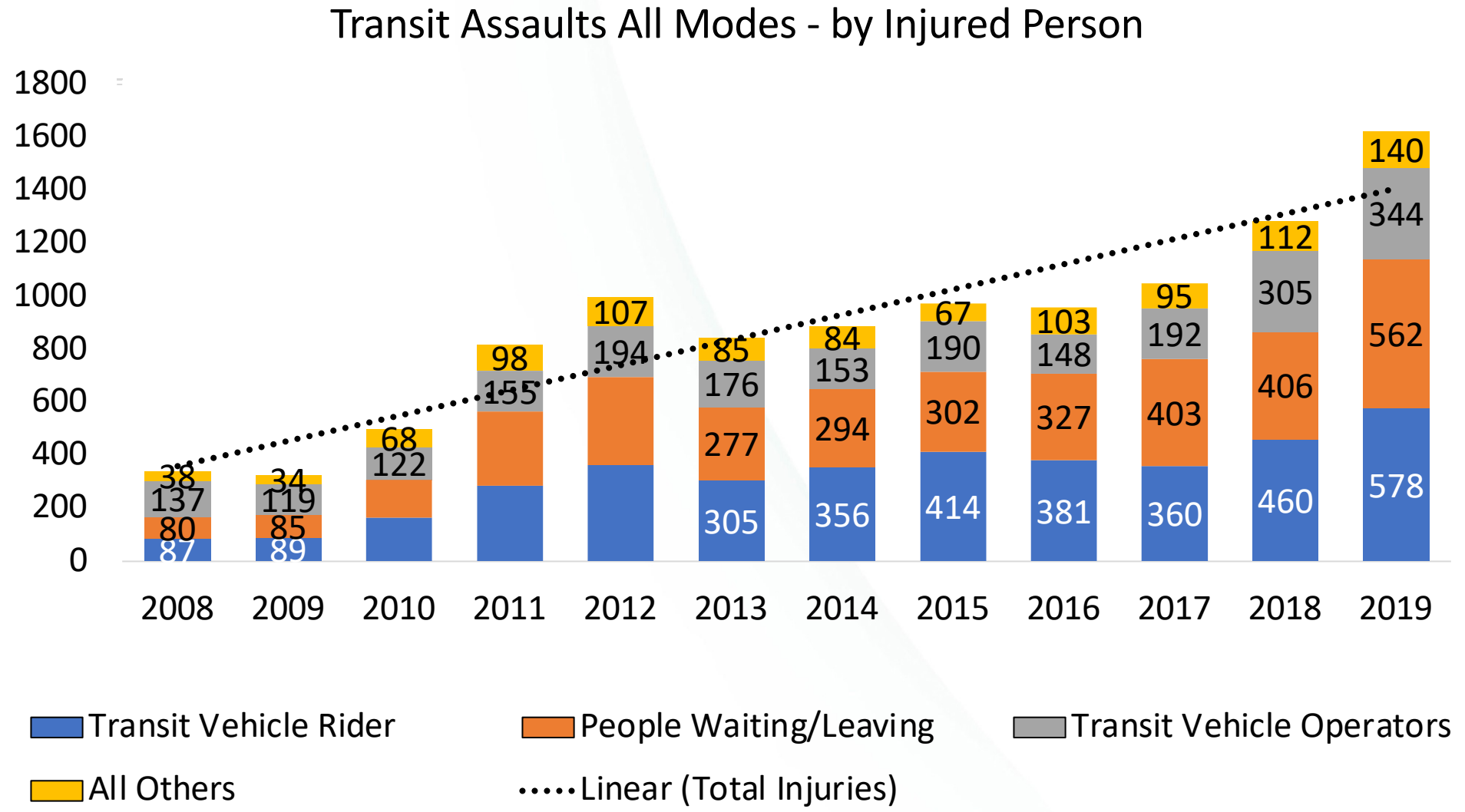
Transit Assaults – The Assessment

Progress and Data Presentation

Progress

- TCRP 193 - *Tools and Strategies for Eliminating Assaults Against Transit Operators* (2018)
- FTA National Online Dialogue on Transit Worker Assaults (June – July 2016)
- FDOT – *Examination of Passenger Assaults on Bus Transit Systems* (2015)
- TRACS 14-01 Report – *Preventing and Mitigating Transit Worker Assaults in the Bus and Rail Transit Industry (2015)*
- TCRP 93 – *Practices to Protect Bus Operators from Passenger Assaults (2011)*
- FTA *Federal Register* Notice on Protecting Transit Operators from the Risk of Assault (May 24, 2019)

Yet, this is where we are: All Modes



SMS Safety Risk Management Process:
Assessing and Mitigating Transit Assaults

SRM Requirements

- Part 673 requires transit agencies to develop and implement Safety Risk Management processes for all segments/subsegments of its public transportation system
- Includes three required elements
  - Hazard Identification
  - Risk Assessment
  - Risk Mitigation

Safety Risk Management

- **Identify safety hazards** – what assault-related hazards do you have at your agency? How do you document them?
- **Assess the safety risks** associated with identified safety hazards – do assaults (transit workers/ others) present an area of risk for your agency?
- Prioritize the safety hazards based on level of risk for your agency – what is the **likelihood** that transit worker assaults or assaults on transit property will occur, the historical/estimated frequency, the **severity** of the outcome
- Implement safety **risk mitigations**

Likelihood \ Severity	1	2	3	4
A	1A	2A	3A	4A
B	1B	2B	3B	4B
C	1C	2C		
D	1D	2D		
E	1E	2E		

Unacceptable under existing circumstances	
Acceptable, but monitoring is necessary	
Acceptable under existing circumstances	

Risk Assessment

- Data is KEY
  - Collect
  - Store
  - Process for reviewing (with SMS team)
  - Identifying trends
  - Acting upon findings
  - Documenting outcomes
  - Re-evaluating based on outcomes (including unintended consequences)
  - Modify if necessary
  - Track outcomes
- Sources
  - Employee safety reporting – this can be a source of leading indicators
  - Dispatch logs
  - Passenger reporting
  - Local law enforcement

Risk Assessment

- Where are they occurring
  - Route/line
  - Specific stations
  - Service areas
  - Hotspots
- When are they occurring
  - Time of day/day of week/time of year
- What is the primary contributor to transit worker/passenger or patron assaults?
- Conditions at stations/transfer locations that increase the likelihood of these events?
- What are the projected outcomes – worker or passenger/patron injuries/fatalities?
- What can be done to abate risk?

Consequences of Inaction

- Consequence [paraphrased] – an effect of a hazard involving injury, illness, or death…
- What happens if actions are not taken?
- What if the actions taken cause unintended consequences?

IDENTIFY, ASSESS, MITIGATE, EVALUATE THROUGH SAFETY ASSURANCE PROCESS, MODIFY IF NECESSARY

Strategies

The Battle Continues . . .

- Transit workers identified within a protected class (31 states)
- Increased video/audio surveillance – on board and at facilities
- Focused de-escalation training for transit workers
- Disability etiquette
- Mental health awareness
- Increased visibility of transit and/or local police officers
- Working with local law enforcement to identify hotspots and coordinate patrolling if possible
- Trespassing passengers who do not follow the transit “code of conduct”

Rider Code of Conduct

CUTR

UNIVERSITY OF SOUTH FLORIDA

WHEN RIDING METROBUS, ALWAYS OBSERVE THESE RULES:

PLEASE DO:

- Have your EASY Card, EASY Ticket or exact cash ready upon boarding.
- Contact 3-1-1 in the event of an EASY Card error.
- Show your current school or college ID to the Bus Operator upon request.
- Pay reduced fare for preschoolers taller than 42 inches without a preschool permit.
- Allow passengers in wheelchairs or mobility devices to board and exit first.
- Watch your step when entering and exiting the bus
- Move to the rear of the bus when carrying large packages, shopping carts, suitcases or strollers.
- Remove infants from strollers and keep baby carriages closed and out of the aisle.
- Secure yourself when standing: hold on to the grab rails or seat racks in case of sudden stops. The Bus Operator may be required to brake suddenly to avoid an accident.
- Signal to stop at least one block in advance.
- Take all personal belongings with you when leaving the bus.
- Allow the ramp to be deployed before exiting the front door.

PLEASE DON'T:

- Disrupt, distract, harass or threaten the Bus Operator, Transit Employees or other passengers.
- Smoke, eat, drink or leave food inside the bus.
- Litter or create an unsanitary condition in the bus.
- Lie down or place your feet on the seats.
- Solicit inside the bus.
- Use audio devices without earphones or with earphones at excessive volumes.
- Place objects or packages on wheel wells.
- Stand in front of the yellow safety line when the bus is in motion.
- Sit in the front seats unless you are elderly or a person with disabilities or you may be required to move.
- Stand if possible until the bus comes to a complete stop.
- Board the bus without being fully clothed and wearing shoes.
- Cross in front of the bus after exiting.

VIOLATORS MAY BE REMOVED FROM THE BUS AT THE NEXT STOP

Information: 3-1-1 (or 305-468-5900)
TDD: 305-468-5402
www.miamidade.gov/transit

MIAMI-DADE COUNTY

Risk Control Strategies*

- Protective Infrastructure
  - Emergency communication systems
  - AVL
  - Audio/video surveillance
  - Protective barriers
- Training and Outreach
- Hiring practices
- Mental health support and post-event counseling
- Agency enforcement and partnerships with local law enforcement

Operational Strategies

- Work with local law enforcement
  - Identify areas of increased criminal activity or social unrest
  - Identify locations trending toward increased violence and threats
  - Monitor events in the area that could disrupt service or be accompanied by violence
  - Increase law enforcement presence
- Adjust routes if necessary – even if temporary
- Pull certain bus stops if necessary – even if temporary

Operational Strategies

- Route/schedule timetables that:
  - Reduce late arrivals at stops and transfer locations
  - Allow sufficient time for bus operator breaks – bathroom, lunch, etc.
- Be aware of bus operator wellness, including recognizing the signs and symptoms of fatigue and associated fitness for duty

Innovations and Methods to Reduce Assaults

- Modifications to bus operator workstations - driver compartment barriers
- Off-vehicle fare collection technologies
  - Smart card - proximity readers or swipe/tap at entry door or at stop/station locations
- Facial recognition technologies to identify trespassed passengers
- Panic/emergency alert buttons tied to local law enforcement and/or transit police
- Apps for passenger reporting – “see something, say something”

Sometimes Everything is Not Enough . . .

- You cannot predict random acts of violence, but you can:
  - **Get to the driver without delay**
  - Train transit workers – vehicle operators and dispatch
  - Make sure your vehicles have panic buttons – tied directly to transit police or control center
  - Make sure dispatch is instructed to quickly contact law enforcement (or provide direct connect to law enforcement)
  - Have the ability to initiate “open mic” on your video/audio surveillance equipment
  - Implement safety/security reporting smart phone applications
  - Provide support services, such as EAP

Finally

- SMS is a **DATA driven process**
- Safety Risk Management must be supported by your agency's **DATA**
  - What are your assault data sources?
  - How do you collect and report assault data?
  - What do you collect?
  - Is the process stagnant or do you continually review your data and make changes based on occurrences, trends, or process challenges?
- Likewise – the Safety Assurance Process must be supported by **DATA** that allow you to evaluate the success/limitations or unintended consequences of a mitigation/countermeasure that you have deployed

TCRP 193 – *Tools and Strategies for Eliminating Assaults*

- TCRP 193 Volume 2: User Guide
  - Vulnerability self-assessment tool
  - Route-based risk calculator w/scoring system
  - Route-comparison summary table
  - Detailed step-by-step examples of tool usage
  - Provides incident response guidance
    - SOPs
    - Reporting process and procedures
    - Threat assessment and response protocols
    - Follow-up and feedback procedures

FTA and Other Resources

- Sample Safety Risk Assessment Matrices for Bus Transit Agencies (pdf)
- Sample Safety Risk Register for Bus Transit Agencies (Excel file)
- Guide to Developing the SRM Component of a PTASP
- PTASP Technical Assistance Center
- Preventing and Mitigating Transit Worker Assaults in the Bus and Rail Industry (TRACS Report 14-01)
- Protecting Public Transportation Operators from the Risk of Assault (FR notice)
- TCRP Synthesis SA-51 – Transit Safety Risk Assessment Methodologies (underway)
- Training offered by FTA, the National Transit Institute, National RTAP, and other sources

Thank You! And…Questions?

Lisa Staes, Associate Director, Center for Urban Transportation Research

Program Director, Transit Safety and Workforce Development Programs

staes@cutr.usf.edu or staes@usf.edu

PTASP Technical Assistance Center (TAC) Links and Contact Information

Technical Assistance Center

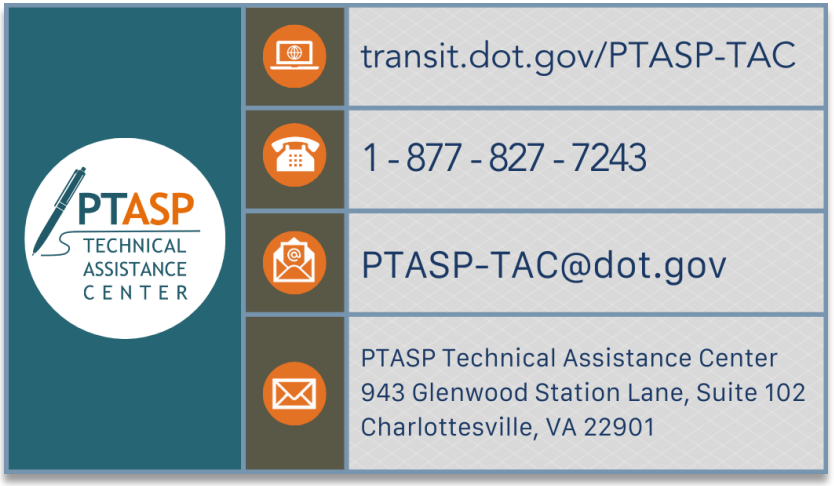
- www.transit.dot.gov/PTASP-TAC

PTASP Community of Practice

- www.transit.dot.gov/PTASP-COP

Frequently Asked Questions

- www.transit.dot.gov/PTASP-FAQs



QUESTIONS AND ANSWERS