

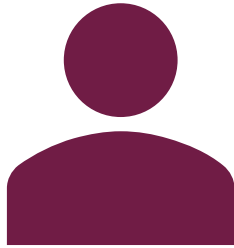


AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION

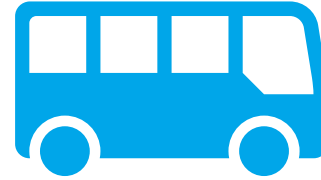
Improving Bus Security and Reducing Bus Operator Assaults

May 21st, 2019

Moderator



Chief Ron Pavlik



Washington Metropolitan
Area Transit Authority



John Condon
Vapor Bus International
jcondon@Wabtec.com



AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION

Key Takeaways

- Operator Protection Doors offer a first line of defense against operator assault. They must be robust to offer protection, yet also offer a high level of operator comfort so that they'll be used.
- When making your product selection be sure to consider life cycle cost, ease of maintenance, and service availability should the need arise.
- The latest innovations include electric fans for superior air circulation and an electric window so the operator can quickly open or close it as he chooses. In the future, integrated display screens on the bottom half of the door will be available for messaging or advertising.

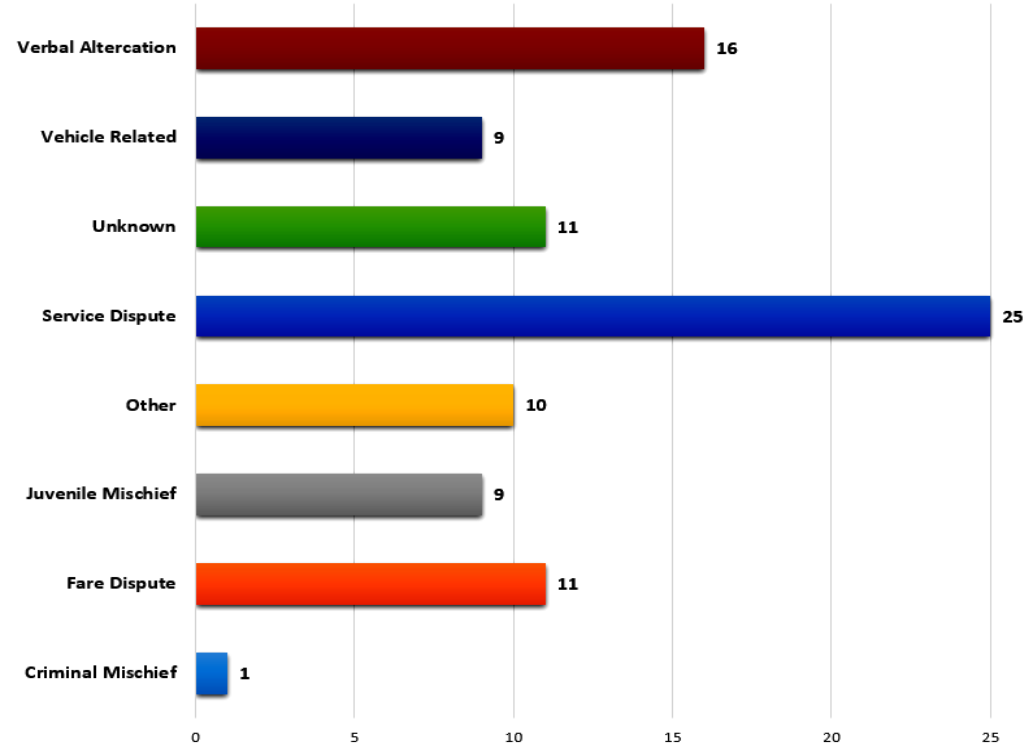


Chief Ron Pavlik WMATA
rpavlik@apta.com

Bus Operator Assault

Motive for the Assault

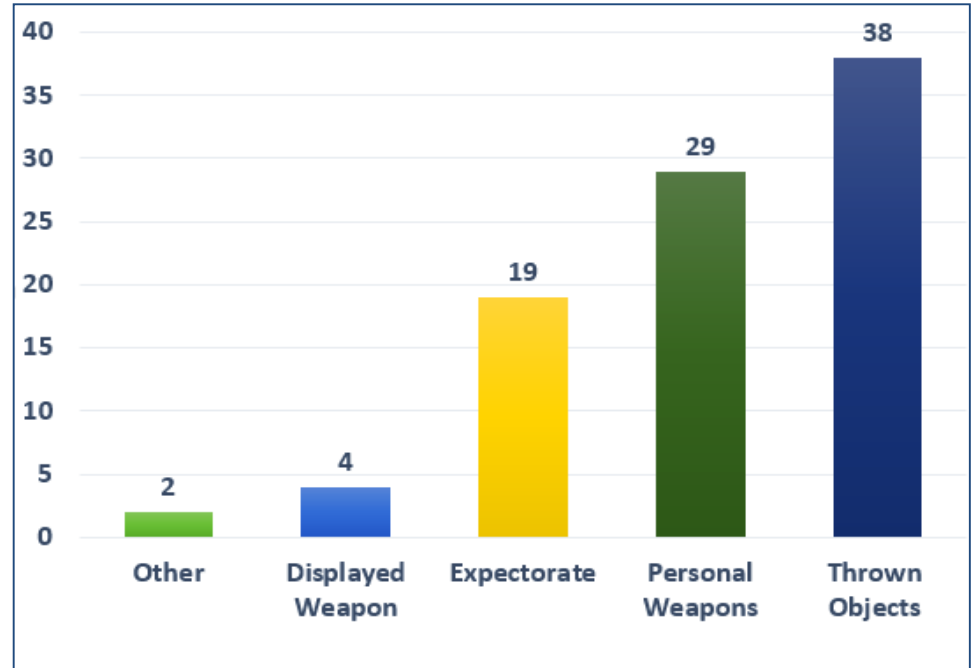
- Service disputes and verbal altercations attributed to 44% of operator assaults in 2018.
- 12% of assaults were due to a fare dispute.
- 12% of operators were assaulted for unknown reasons, with no clear motive behind the assault.
- 11% were caused by “other” reasons.
- “Other” category example includes disorderly patrons and unwarranted touching to the operator, both which were the top reported incidents in this category.



Bus Operator Assault

Assault Type

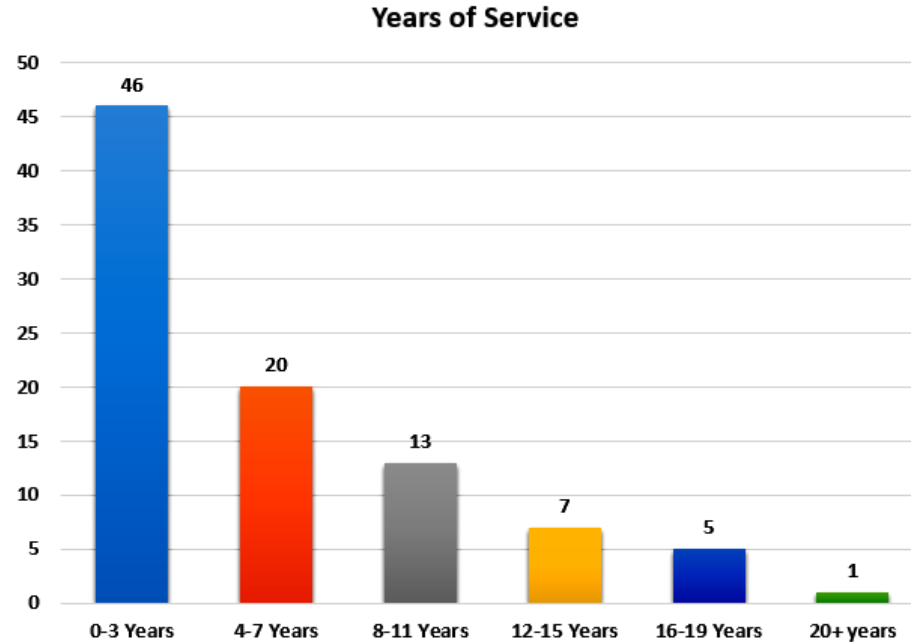
- In both yearly periods, operators were most frequently assaulted by thrown objects (41%).
- Personal weapons (hands, feet) were used in nearly a third of cases.
- 28% of personal weapons cases were the result of a service dispute between the patron and the operator.
- Operators were expectorated on in 21% of the cases.
- The “other” assault type category includes 2 or more assault types used in one incident. For example, an operator being expectorated on and having an object thrown at them in the same incident.



Bus Operator Assault

Years of Service

- 50% of Bus Operators assaulted had 0-3 years of service.
- 21% had 4-7 years of service.
- 5% had 16-19 years of service.
- 1 operator had 20+ years of service.
- 7 operators have been involved in multiple incidents.
- NOTE: Seniority plays a role in the Bus Operator's divisional assignment.



Bus Operator Assault

Bus Operator Assault Reduction Program (BOARP)

- The BOARP was created to help operators learn techniques to reduce the chances of being assaulted, learn what is considered self defense versus retaliation, learn how to properly use the safety equipment on the bus, and procedures for reporting incidents to MTPD.
- All incoming operators attend this training, as well as operators who have been involved in an assault.
- A total 1,538 operators have been trained in 2018, compared to 267 in 2017.
- One-on-one classes for operators who have been involved in multiple bus operator assaults began in December 2018.
- 6 operators involved in multiple assaults have attended one-on-one training.

| 2018 BOARP Training Counts | | |
|----------------------------|------------|-------------|
| Bus Division | 2017 | 2018 |
| Shepherd's Parkway | 134 | 290 |
| Bladensburg | 126 | 313 |
| Southern Ave | 1 | 12 |
| Montgomery | 0 | 218 |
| Landover | 3 | 271 |
| Four Mile | 1 | 59 |
| Northern | 2 | 137 |
| Western | 0 | 5 |
| West Ox | 0 | 122 |
| Cinder Bed | 0 | 111 |
| Total | 267 | 1538 |



Michael Kuzmich
Clever Devices
mkuzmich@CleverDevices.com



AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION



Primary Takeaways

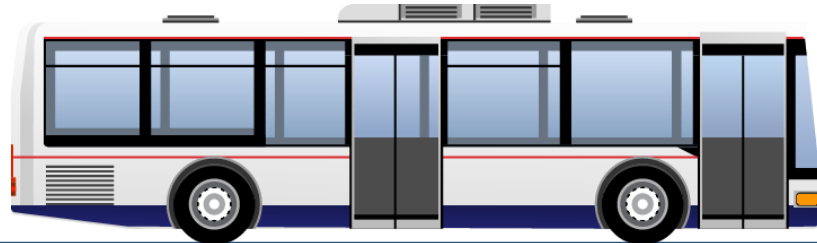
American Public Transportation Association (APTA) – Mobility Conference
Improving Bus Security and Reducing Bus Operator Assaults – May 21, 2019

What are the most common scenarios to be prevented?

Theft or unauthorized access of the vehicle

Hijacking the vehicle with the intent to harm pedestrians, property, and those onboard the bus

Malicious actions aimed at the bus operator



What is Secure Bus Access?

Prohibits Unauthorized Operation

- Secure operator PIN required to move the vehicle
- Employee ID authentication assures the correct person is operating the vehicle

Ensures Operator Validation

- Seat vacancy switch prevents unauthorized use should the operator leave the seat for a configurable period of time
- PIN can be generated by dispatch / central control if operator forgets code during service day

Allows Remote Disablement

- Upon emergency, Dispatch or authorized safety personnel can remotely disable vehicle to allow for safe deceleration
- Configurable solution through the vehicle's multiplex system remotely allows:
 - Vehicle to be placed in neutral at appropriate time
 - Covert communications
 - Headlights and hazard lights to be activated
 - Interior / exterior message
 - Door opens when bus stops

Integrated with Clever Devices' ITS solutions

Results at Several Public Transit Agencies

- Thwarted an armed hijacking and robbery
- Ensures the correct people are operating a bus
- Vehicle operators safety enhanced

Questions?