

Battery Electric Bus Fire Safety

Delaware Transit Corporation

Burdon Tyson

Assistant Safety and Security Manager

Industrial Fire Safety



Background

Delaware Transit Corporation
Assistant Safety and Security Manager
Industrial Fire Safety

Wilmington, DE Fire Department
Lieutenant (Ret.) 20 years of service

Education
Rowan University – B.A.



Delaware Transit Corporation

DART First State

- State's sole public transportation system
- Subsidiary of DeIDOT
- 252 fixed route buses
- 26 battery electric buses (BEB)
- Introduced BEBs in 2017
- Hydrogen fuel cell buses coming soon



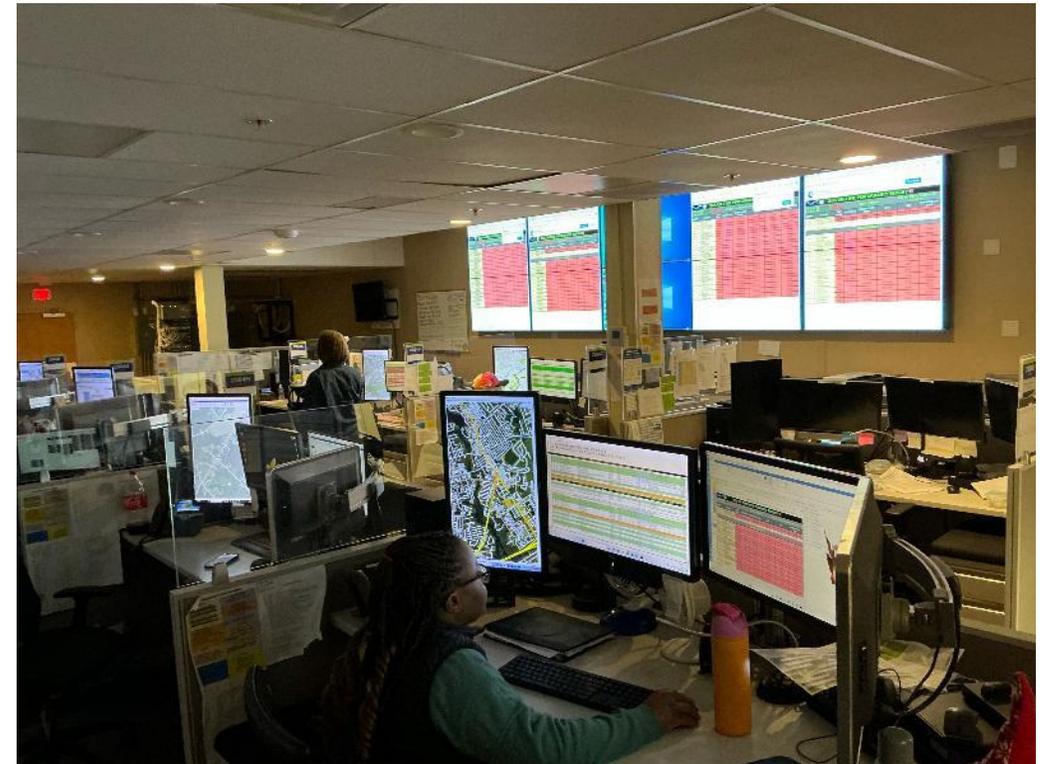
What Can We Do? Be Proactive!



Bus Operators/Control Center

BEB Standard Operating Procedure (SOP)

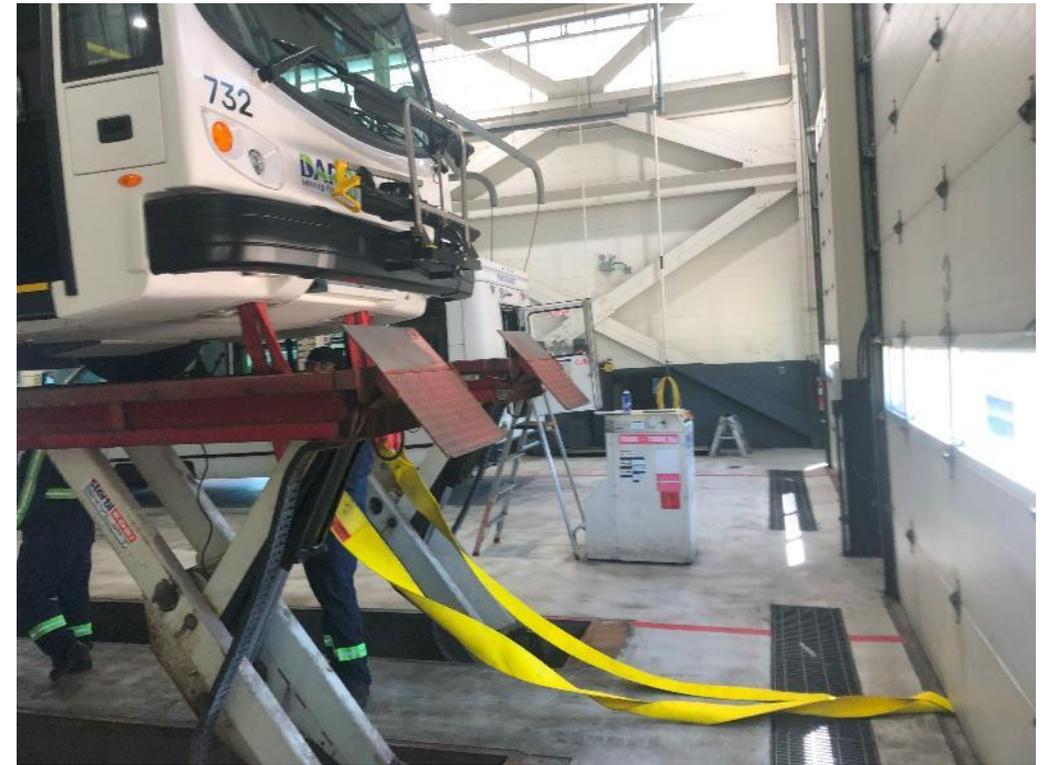
- What is the emergency/situation
- Location (specific)
- Injuries
- Number of passengers
- Can the bus be safely moved to an open area?
- Turn master switches to OFF position



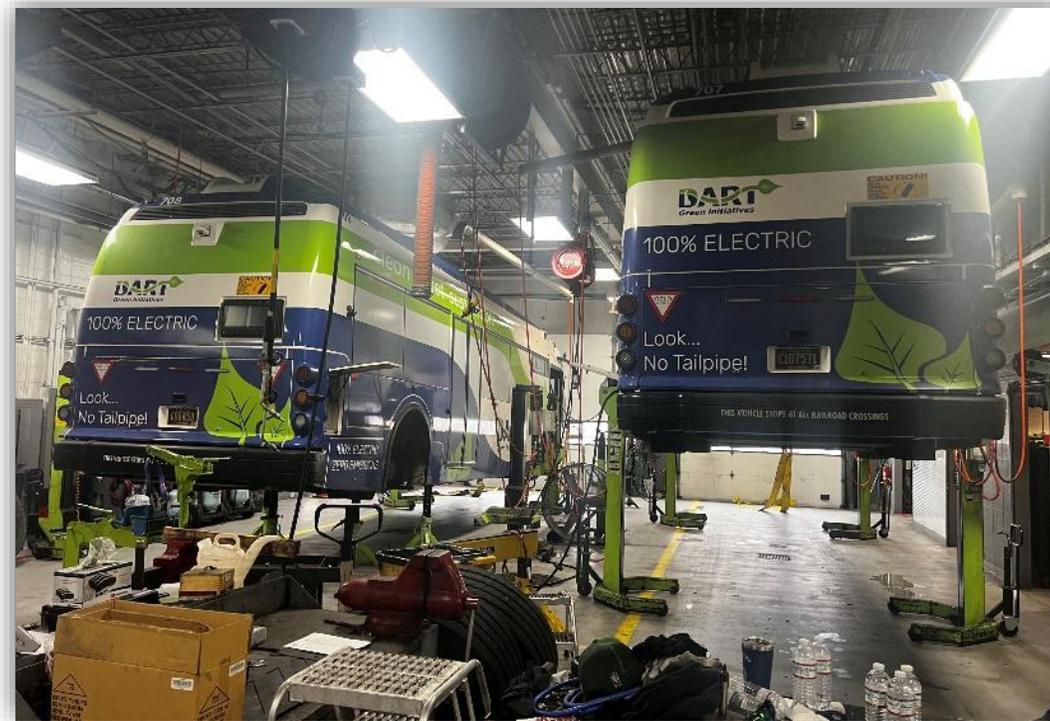
Maintenance

BEB Standard Operating Procedure (SOP)

- Charge and relocate
- Dedicated BEB storage lot
- Maintenance limited to designated bays
- Thermal imaging before bay entry
- Tow straps and service truck on standby
- Thermal imaging for all road calls



Maintenance



Charging/Spacing



Thermal Imaging Training



Thermal Imaging



First Responder Training

Fire Department and EMS

- High-voltage areas
- Shutdown procedures
- Safe bus access
- Stabilization/lifting points
- PDF emergency guides on laptops



First Responder Training



Administrative COOP Exercise

Continuity of Operations Plan Exercise



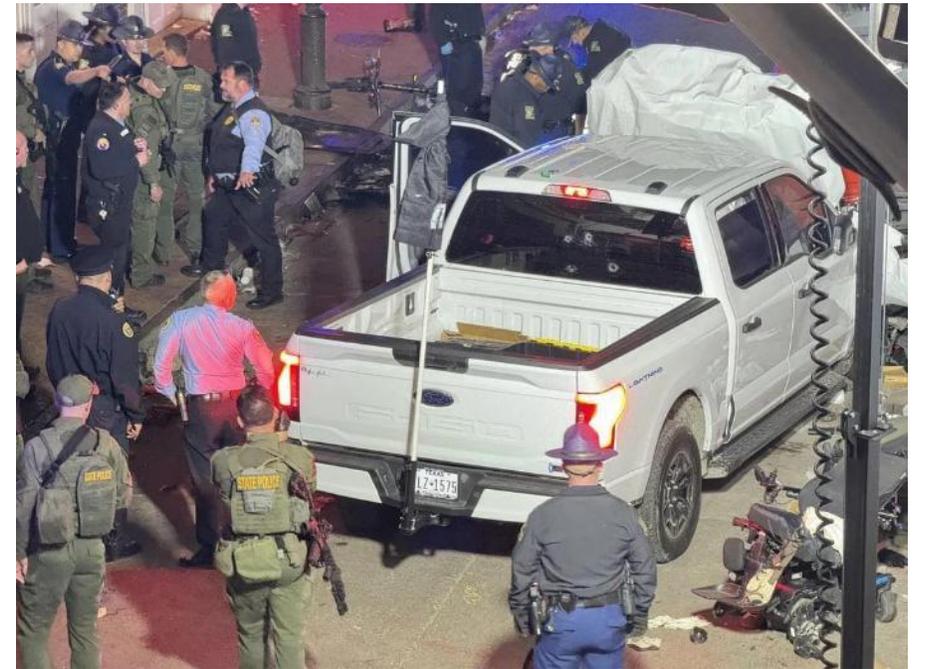
EV Ramming: Threats & Terrorism

Why EVs Appeal

- Quiet, hard to detect
- Fast & heavy = lethal
- Complex fires/toxic gases

Terrorist Use

- Groups push vehicle-as-weapon
- Propaganda promotes EV ramming
 - New Orleans 2025 – 14 dead, 57 injured



EV Ramming: Threats & Terrorism

Responder Safety

- Expect secondary weapons
- Alert dispatch if EV involved
- Watch for leaks, sparks, odors, hissing
- Stay uphill/upwind; evacuate if needed
- Avoid orange HV cables



Moving Forward

- BEB fires are rare but very complex
 - Low Frequency/High Risk
- Safety depends on teamwork
 - Operators
 - Dispatchers
 - Responders
- Stay proactive: training and communication saves lives
- Stay alert: terrorism threats are real, vigilance matters



Contact Information

